Guidance on Clean Air Act Title III Regulations: National Emissions Standards for Hazardous Air Pollutants

U.S. Army Environmental Center
1 September, 1998

Introduction

The primary purpose of this document is to help you plan compliance strategies for the regulations written under Title III of the Clean Air Act Amendments of 1990 (CAAA). This document will help you identify the Title III regulations that may affect your installation, and pollution control measures that may be required to comply with each of these regulations. Between now and November 2000, USEPA is scheduled to promulgate over 100 new Title III regulations. These regulations, known as the National Emissions Standards for Hazardous Air Pollutants (NESHAPs), will comprise almost all new CAAA regulations promulgated between now and the year 2001.

Use this document to prepare your installation for the Title III regulations controlling hazardous air pollutants (HAPs). For each NESHAP expected to affect one or more Army installations, it provides descriptions and costs of air pollution controls that may be required, including pollution prevention methods. It also lists points of contact to help you implement these air pollution control measures. See enclosure one for descriptions of each NESHAP expected to affect one or more Army installations.

This document has several secondary purposes:

1. Help you save your installation money by reducing your installation's HAPs emissions status from "Major Source of HAPs" to an "Area Source". Enclosure two describes methods for "Major Sources of HAPs" to become "Area Sources".
2. Help you understand the technology standards and other studies required by Title III of the CAAA. Enclosure three includes brief descriptions of these programs.
3. Identify POCs for general information on the NESHAP regulations.

For more information concerning this document please contact Mr. Paul Josephson, U.S. Army Environmental Center, commercial (410) 436-1205, DSN 584-1205.

Guidance on Clean Air Act Title III Regulations: National Emissions Standards for Hazardous Air Pollutants

Avoiding the requirements of NESHAPs by reducing your HAPs emissions.

Background on Title III

EPA memorandum, undated, Subject: Options for Limiting the Potential to Emit (PTE) of a Stationary Source Under Section 112 and Title V of the Clean Air Act (Act)

EPA memorandum, dated 10 July 1998, Subject: Second Extension of January 25, 1995 Potential to Emit Transition Policy and Clarification of Interim Policy.

Department of the Air Force memorandum, undated, Subject: Summary of Nonroad Engine Rule and Engine Manufacturer’s Association vs. EPA.

EPA memorandum, dated 2 August 1996, Subject: Major Source Determinations for Military Installations under the Air Toxics, New Source Review, and Title V operating Permit Programs and the Clean Air Act (Act)

Guidance

Encl 1

Encl 2

Encl 3

Encl 4

Encl 5

Encl 6

1. Between November 15, 1992 and November 15, 2000, USEPA intends to promulgate 174 regulations under title III. USEPA calls each of these regulations a National Emissions Standard for Hazardous Air Pollutants (NESHAP). Of the 174 NESHAPs that USEPA intends to promulgate under title III, AEC has identified 24 that appear to apply to one or more Army installations.

2. This attachment includes one fact sheet for each of the 24 promulgated, proposed, and scheduled to be proposed title III regulations that AEC believes appear to apply to one or more Army installations. Each fact sheet describes the potential compliance measures for the NESHAP, methods for estimating the cost to implement these measures, the proposed promulgation and final compliance date for this NESHAP, and installations that may be affected by this NESHAP.

3. We estimated which NESHAPs may affect each installation based upon information in each installation's air emissions inventory, (when the inventory has been provided to USAEC) and the Industrial Operations Command data books. Your installation may be subject to different NESHAPs than those listed as applying to your installation in this attachment. Most middle sized and larger installations will only be affected by one, two, or three NESHAPs total.

4. For those regulations that USEPA has yet to propose, AEC has forecast compliance technologies or methods that may be required. Our forecasts are based upon current technologies and management measures that control those pollutants.

NESHAPs Expected to Affect Army Activities

NESHAP	Expected promulgation date	Expected compliance date
Dry cleaning (four separate NESHAPs) (affects area sources)	09/22/1993	09/22/1996
(No information sheet, all installations have successfully complied)		
Halogenated solvent cleaners (affects area sources)	12/02/1994	12/02/1997
Chrome electroplating	01/25/1995	01/25/1998
Aerospace surface coating	09/01/1995	09/01/1998
Municipal Landfill EG and NSPS	03/12/1996	03/12/1999
Printing/publishing	05/30/1996	05/30/1999
Off Site Waste Rule	07/01/1996	07/01/1999
Medical waste incinerators	06/01/1997	06/01/2000
Hazardous waste combustors	10/01/1998	10/01/2001
Publicly (and federally) owned treatment works	06/01/1999	06/01/2002
Vehicle surface coating	01/15/2000	01/15/2003
(See metal part surface coating)		
Burning Scrap Tires	11/15/2000	11/15/2003
Engine testing	11/15/2000	11/15/2003
Explosives manufacturing	11/15/2000	11/15/2003
Gasoline Distribution	11/15/2000	11/15/2003
Generators	11/15/2000	11/15/2003
Industrial boilers	11/15/2000	11/15/2003
Institutional/commercial boilers	11/15/2000	11/15/2003
Leaded Aviation Fuel	11/15/2000	11/15/2003
Metal part surface coating	11/15/2000	11/15/2003
Paint strippers	11/15/2000	11/15/2003
(See metal part surface coating)		
Rocket engine test firing	11/15/2000	11/15/2003

HALOGENATED SOLVENT CLEANERS NESHAP	PROMULGATED 40 CFR Subpart T	PROMULGATED: 02 DEC 94 COMPLIANCE DATE: 02 DEC 97
MAJOR SOURCE – YES **AREA SOURCE - YES**		

Army activities affected: Batch and in-line halogenated solvent cleaning (HSC) machines. A few of these machines may still be found at depot level maintenance facilities, and equipment rework facilities.

Air pollutant emissions controls required: Facilities can either control their HSC HAP emissions using the controls listed at 40 CFR 63.463, or they can replace their halogenated solvents with non-halogenated solvents. 40 CFR 63.463 requires control of HSC emissions by various combinations of tight fitting lids, water blankets, minimum free board, minimum freeboard dwell times, condensors (free board refrigeration device), maintaining vapor in super heated state, minimizing room draft, and carbon adsorbers. USEPA also specifies work practices. These include collecting solvent contaminated items in closed containers, quick spill clean up, minimizing drafts and splashing of solvent.

Sources of assistance for identifying non-halogenated solvents to replace halogenated solvents.

The AEC pollution prevention implementation team works with Air Force, Navy, and Industry to find lower polluting alternatives to current Army maintenance and industrial practices. Mr. A.J. Walker (410) 436-6863 DSN 584-6863 can help you find lower polluting alternatives to the solvents currently used at your installation.

The document "Air Quality Management *Using* Pollution Prevention: *A Joint Service Approach*", provides examples and POCs of non-halogenated solvent cleaning methods that have been found useful for one or more piece of DoD equipment. To obtain a copy of this document, please call Ms. Linda Jekel, USACHPPM, DSN 584-3500, com. (410) 436-3500.

Industrial Operations Command Pollution Prevention Center of Technical Expertise POC. This POC can assist you in identifying and implementing alternative, non-halogenated solvents.

Mr. Charles Gawenis (512)939-4170 DSN 861-4170

Web sites listing lower polluting maintenance materials and maintenance methods

http://www.jgapp.com/pilotma3.htm

http://enviro.nfesc.navy.mil/p2library/

http://es.inel.gov/hssds/

Note, before you can substitute a lower polluting material for the material currently used to maintain an item, you must obtain approval of the item's program manager. (i.e. If you wish to switch the depainting method on an OH-58C helicopter, either you must obtain the permission of the program manager for the OH-58C, or the alternate material or method must be listed in the item's technical manual.) For help in winning the program manager's approval for an alternative maintenance method or material please call Mr. Dean Hutchins, USAEC, at (410) 436-6855, DSN 584-6839.

Costs and descriptions of alternative solvents

Navy Pollution Prevention Guidebooks

The Navy continuously updates these guidebook with detailed descriptions of new lower polluting technologies that they have found effective

http://www.enviro.nfesc.navy.mil/p2library/index2.html

http://www.lakehurst.navy.mil/p2/master/toc.htm

Aqueous Cleaners.

Description: Aqueous Cleaners can remove grease, dirt, paint, or corrosion from metal parts. However, most program managers for Army weapons systems have been reluctant to approve aqueous cleaners for maintenance on their systems as they are afraid that these systems hasten corrosion. For a list of aqueous cleaning solvents, aqueous cleaning machines, and their uses, please consult the "Tri-Services Pollution Prevention Handbook". To obtain a copy of this handbook, please call Mr. Michael Eck, Army Environmental Center, DSN 584-1227, Com (410) 436-1227. For assistance in determining if an aqueous cleaner can be used to replace halogenated solvent cleaners for any maintenance procedures at your installation, please call Mr. Dean Hutchins DSN 584-6855 or com (410) 436-6855.

Cost:	Multi-stage aqueous washers as replacements for vapor degreasers.	$770,000
	Large size vehicle degreasing unit	$150,000
	Large size parts degreasing unit	$ 80,000
	Small/medium metal parts degreaser	$ 25,000
	Aqueous washer for weapons cleaning. Estimated cost	$ 15,000.
	Jet washer. (tank capacity 20 gallons)	$ 3,000
	Jet Washer (tank capacity 300 gallons)	$ 20,000

Points of Contact: Mr. Edward Hanna, Red River Army Depot, DSN 829-3658/3380, Com. (903)334-3658/3380. Mr. Charles Gawenis, Corpus Christi Army Depot, DSN 861-4170, Com. (512) 939-4170.

Monitoring/Record Keeping: Thermometer (if using a freeboard refrigeration device), thermocouple (if using superheated vapor), visual inspection of covers, dwell time, room draft, or colorimetric volatile organic concentration measure (if using carbon adsorber),

Other sources of information: The Hazardous Air Pollutant (HAP) Status binder fully covers the requirements of this NESHAP. Each installation should have a copy of this binder. Please call Dr. David Reed DSN 584-3500, com (410) 436-3500 for a copy of this binder.

Installations that may be affected by this NESHAP: Anniston Army Depot, Corpus Christi Army Depot, Tobyhanna Army Depot, Rock Island Arsenal, Red River Army Depot, White Sands Missle Range.

CHROMIUM ELECTROPLATING & ANODIZING NESHAP	PROMULGATED 60 FR 4948 40 CFR 63 SUBPART N	PROMULGATED: 25 JAN 95 25 JAN 97 FINAL: 25 JAN 98
MAJOR SOURCE – YES **AREA SOURCE – YES**		

Army activities that may be affected: Chromium electroplating tanks at vehicle and armament rework facilities. Some vehicle and weaponry parts require a layer of chromium corrosion proofing.

Air pollutant emissions controls that may be required: Packed bed scrubbers are, for the time being, the method by which Army installations are controlling chromium emissions from their electroplating tanks. In the future, Army installations may replace their current chrome electroplating processes with lower polluting processes. Army materiel command installations are experimenting with ion-vapor deposition and sputtering deposition. Additionally, Army vehicle systems currently under development (i.e. the next generation of helicopters, tanks, armored vehicles, etc.) are being developed with few or no parts requiring chromium (or cadmium) electroplating. Currently fielded systems will probably require the same level of chromium electroplating throughout their lifetimes.

Costs for Packed Bed Scrubbers: The following cost data are USEPA cost estimates for packed bed scrubbers. It is expected to be accurate to within +/- 30%. This chart indicates the total capital investment for a stainless steel packed bed scrubber as a function of polluted air stream flow rate. Total capital investment includes purchase cost, cost to install, engineering costs, and first year operations and maintenance. A rule of thumb for air flow rate is 250 ft^3/min-ft^2 of chromium electroplating tank surface area. Note that many Army electroplating operations exceed this airflow rate.

Flow Rate (ft^3/min)	Capital Cost (estimated)
12,500	$145,000
25,000	$234,000
37,500	$300,000
50,000	$360,000
62,500	$540,000
75,000	$600,000
100,000	$715,000

POCs

ion-vapor deposition: Mr. Dennis Reed Letterkenny Army Depot

DSN 570-1206
Com 717-267-1206

sputtering deposition: Dr. Joseph Walden Watervliet Arsenal
. DSN 974-5236
Com 518-266-5236

Mr. Larry Rush Watervliet Arsenal
DSN 974-4724
Com 518-266-4724

Industrial Operations Command
Center for Technical Expertise Plating Operations

Mr. Ronald Lund Rock Island Arsenal
. DSN 793-7925
Com 309-782-7925

Mr. Jay Lundberg Rock Island Arsenal
DSN 793-2318
Com 309-782-2318

Mr. Jay Paris Watervliet Arsenal
DSN 974-5729
Com 309-782-5729

Mr. James Holiday Corpus Christi Army Depot
DSN 861-3243
Com 512-961-3243

Monitoring/Record Keeping: Measure and record the pressure drop between the inlet and the outlet of the air pollution control device controlling the chromium

Installations that may be affected by this NESHAP: Anniston Army Depot, Corpus Christi Army Depot, Crane Army Ammunition Plant, Letterkenny Army Depot, Red River Army Depot, Redstone Arsenal, Rock Island Army Depot, Tooele Army Depot, Watervliet Army Depot.

AEROSPACE MANUFACTURING AND REWORK FACILITIES	PROMULGATED 40 CFR 63.741 AMENDED 61 FR 55842	PROMULGATED: 01 SEP 95 AMENDED: 29 OCT 96 COMPLIANCE DATE: 01 SEP 98
MAJOR SOURCE – YES AREA SOURCE - NO		

Army activities that may be affected: Helicopter, missile, and other aircraft cleaning, degreasing, surface coating, and depainting operations. This includes painting, depainting, cleaning, and degreasing of all parts that are structurally part of the aircraft or are required for it to fly. Regulated operations include;

1. painting
2. depainting
3. priming
4. cleaning
5. degreasing
6. chemical milling maskants
7. surface treating (anti-corrosion treatments)

Summary or the Aerospace NESHAP air pollution control regulations

As described below, replace currently used paints, cleansers, solvents with lower HAP formulations. Paint and depaint vehicles within enclosures that capture all overspray and depainting dust.[1]

[1] Painting, priming, cleaning, degreasing, and depainting emit significant amounts of organic and inorganic HAPs into the atmosphere.
Paints, primers, solvents, and degreasers emit large amounts of organic HAPs into the environment as they dry. These materials are usually comprised of 50% to 100% organic HAPs by volume. The HAPs in these materials volatilize into the atmosphere as a normal part of their use. Paints and primers, when wet, are a mixture of paint solids and paint solvents. The solvents are usually organic HAPs such as Methyl-Ethyl Ketone, Methyl Isobutyl Ketone, and Ethylene Glycol. The process of paint drying consists of the solvents evaporating into the atmosphere while the particles comprising the solids portion of the paint bind to one another. In the past, cleansers and degreasers were made up almost entirely of organic HAPs that evaporated entirely after use. Maintenance personnel have preferred cleansers and degreasers that evaporate completely after use. The more solvent evaporates, the cleaner the part that the solvent was cleaning. This rule reduces organic HAPs emissions from painting, cleaning, degreasing by requiring that aerospace equipment maintenance and manufacture workers either use formulations of paints, cleansers, or degreasers containing low concentrations of HAPs, or that the workers vent all HAPs emitted from these activities to an air pollution control device.

Painting and depainting emits inorganic HAPs into the atmosphere. The solids portion of paints includes inorganic HAPs such as lead, chromium, and cadmium. When workers spray paint onto the surface of a vehicle or onto vehicle parts, roughly half of the paint sticks to the vehicle or part, while the other half escapes in a cloud of particulate into the atmosphere. The paint particulate that escapes into the atmosphere carries inorganic HAPs into the atmosphere. When workers remove paint from vehicles and parts, they commonly scrape the paint away by blasting the surface with a stream of abrasive powder or sanding the surface with a sheet of abrasive material. The paint dust scraped from equipment and parts contains organic HAPs. When this dust escapes into the atmosphere, it carries inorganic HAPs with it. To control inorganic HAPs from painting and depainting, this NESHAP requires painting and depainting within a structure whose exhaust vents to high efficiency particle filters.

Please read the text of the Code of federal regulations for the actual requirements, or see the implementation guidance at http://www.epa.gov/ttn/uatw/aerosp/aeroimp.pdf

Topcoat Application[2]

1. Limit VOC concentration of all regulated topcoats to 3.5 lbs/gallon (after subtracting water portion) OR Vent all emissions to a capture and control device capable of removing at least 81% of the HAPs from the top coating, surface treatment, and primer operation air emission's streams. (i.e. an air pollution control device consisting of an activated carbon adsorber and incinerator.)
2. Apply topcoats using either a High Volume Low Pressure spray gun, electrostatic spray gun, or another method whose application efficiency is equal to or exceeds the efficiency of these two methods.
3. If the topcoat contains inorganic HAPs, apply topcoat within an enclosure that vents all emissions to a high efficiency dry filter or high efficiency water wall filter.[3]

Primer Application

Limit VOC concentration in primer to 2.9 lbs/gallon (after subtracting water portion) OR Vent all emissions to a capture and control device capable of removing at least 81% of the HAPs from the top coating, surface treatment, and primer operation air emission's streams. (i.e. an air pollution control device consisting of an activated carbon adsorber and incinerator.)

Cleaning, Including Hand Wipe Cleaning, Flush Cleaning, and Spray Gun Cleaning

Regulations limit vapor pressure of cleaners. Regulations require using and storing solvents and cleaners in enclosures that will prevent the solvents and cleaners from evaporating. These regulations govern degreasing of parts as well as cleaning parts prior to applying a surface coat.

Depainting

This NESHAP specifies air pollution controls for both liquid and abrasive blasting paint stripping methods. Its requirements for liquid paint stripping operations are similar to the requirements on topcoat, surface preparation, and primer operations. The requirements for paint dust emissions generated by abrasive blasting are the same as the requirements for overspray control.

1. It is permitted to use up to 365 pounds/year/aircraft of HAP bearing solvent for decal stripping and spot paint removing
2. No HAPs may be emitted from depainting operations other than that permitted for decal stripping and spot painting. Unless the solvent is exempt.
3. Store all solvent laden rags in bags or other air-tight containers.
4. If dust generated by abrasive depainting measures (such as bead blasting) contains inorganic HAPs, this dust must be filtered through a dry filter system or through a water wash system prior to entering the environment. The filter system must be monitored and operated in accordance with manufacturer's specifications. The HAP chromium (part of chromate) is a common component of depainting dust.
5. Dust from mechanical and hand sanding is exempt from the dust collection and control requirement.

Chemical Milling Maskants

[2] This rule exempts CARC from its requirements. See the list of specialty coatings exempted from the requirements of this rule in the CFR.
[3] Operations depainting 6 or fewer complete aircraft per year exempt from this requirement.

Use chemical milling and maskants containing less than 5.2 lbs/gallon VOCs (after subtracting water portion).

Materials, Equipment, and POCs to assist you in complying with the Aerospace NESHAP

Bringing your installation into compliance with this NESHAP will require identifying alternatives to high HAP concentration cleansers, solvents, primers, chemical milling maskants, and topcoats used at your installation. It may also require purchasing and installing paint booths equipped with particulate filters, and there is a tiny possibility that your installation may be required to purchase an air pollution control device to treat organic Hazardous Air Pollutant emissions. The purpose of this section is to provide you information on materials and equipment that you may need to bring your installation into compliance with this NESHAP. This section includes the names of Army personnel who can help you locate low HAP alternatives to any solvents, cleansers, chemical milling maskants, primers, or top coats that you may use at your installation. It also lists some low HAP cleansers that have just been identified as replacements for high HAP cleansers currently required by Army Aerospace equipment military specifications. We have also included NSNs for low HAP CARC (even though this NESHAP excludes CARC from regulation), and cost information for purchasing and installing paint booths with particulate filters, and devices to capture and control HAPs from painting and solvent use.

Points of Contact.

Solvents used on Aircraft — Arun Gupte (256)313-1711

General Aerospace Expert & Solvent Cleaning — Charles Gawenis (512)939-4170 DSN 861
Mechanical Depainting — Steve Guthrie (205)235-6624 DSN 571
Mechanical Depainting — Mark Crawford (903) 334-4008 DSN 829
Chemical Depainting — Ron Scarnulis (717) 895-8223 DSN 795
Low VOC/HAP CARC — Dennis Reed (717) 267-9506 DSN 570

Also
Low VOC/HAP CARC — Bruce Anderson (713) 621-1620 (Fort Bliss)

New 1.8 lb/gallon VOC CARC
Jeff Duncan (410) 306-0690 DSN 654
John Escarsega (410) 306-0693 DSN 654

Alternative Solvents and Cleaners A.J. Walker (410) 436-6863 DSN 584-6863

Web sites listing lower polluting maintenance materials and maintenance methods

http://www.jgapp.com/pilotma3.htm

http://enviro.nfesc.navy.mil/p2library/

http://es.inel.gov/hssds/

Note, before you can substitute a lower polluting material for the material currently used to maintain an item, you must obtain approval of the item's program manager. (i.e. If you wish to switch the depainting method on an OH-58C helicopter, either you must obtain the permission of the program manager for the OH-58C, or the alternate material or method must be listed in the item's technical manual.) For help in winning the program manager's approval for an alternative maintenance method or material please call Mr. Dean Hutchins, USAEC,

at (410) 436-6855, DSN 584-6839.

Contact one of the following Regional POCs for a copy of the General Services Administration "Environmental Products Guide".

Washington D.C.	1-800-848-8928
Northeast	(215) 656-3892
Palmetto, GA	(404) 463-6010
Chicago, IL	(708) 396-3350
Ft. Worth/Denver	(817) 334-5387
Stockton, CA	(209) 946-6388/6389
Auburn, WA	(206) 931-7478

Capture and Control type air pollution control devices: This NESHAP may require a few installations to install volatile HAP controls and/or additional paint booths and particulate matter controls.

Inorganic HAP controls

Purchasing and installing an abrasives blasting depainting unit generally costs between $150,000 and $200,000. This cost includes blasting equipment, a paint stripping enclosure, and blasting media recycle system.

A paint booth with dry filters costs approximately $200,000.

Volatile HAP controls.

The Split-flow ventilation and recirculation paint booth being developed by USEPA and the U.S. Air Force. This booth includes an innovative pollutant separation mechanism to reduce air pollution control costs. Capital costs (which includes purchase, design and installation costs as of 1994) for both the split flow ventilation and the incinerator are estimated to be as follows. Estimate is for a paint booth measuring 25' long by 18' wide by 14' tall. (S. Hughes, J. Ayer, R. Sutay, Demonstration of Split-Flow Ventilation and Recirculation as Flow-Reduction Methods in an Air Force Paint Spray Booth. Armstrong Laboratory Environics Directorate AL/EQS-OL, July 1994) POCs Dr. Joseph Wander (850) 283-6240.
Mr. Randy Spencer (760)577-7777 DSN 282-7777

Thermal Incineration

Flow rate (scfm)	Capital Costs	Annual Operating Cost
30,000	$392,000	$383,000
15,000	$387,000	$232,000
7,500	$333,000	$147,000
3,000	$275,000	$ 91,000

Catalytic Incineration

		Annual

Flow rate (scfm)	Capital Costs	Operating Cost
30,000	$550,000	$297,000
15,000	$471,000	$192,000
7,500	$368,000	$127,000
3,000	$270,000	$ 81,000

Depot level paint booths. A few installations have installed air pollution control devices capable of collecting and destroying greater than 99% of volatile HAPs emitted from surface coating operations. These have been required by local volatile organic carbon control regulations rather than a NESHAP. The capital cost for these air pollution control devices, which are big enough to fit booths capable of simultaneously painting four to six large vehicles at a time, run from $3,000,000 to $6,000,000. These costs vary with workload and difficulty of retrofit.

Monitoring/Record Keeping: Written records of paint, paint thinner, and solvent used by day and location.

Installations that may be affected by this NESHAP: Fort Benning, Fort Bliss, Fort Bragg, Fort Campbell, Corpus Christi Army Depot, Fort Eustis, Fort Hood, Fort Jackson, Fort Knox, Fort Lee, Fort Leonard Wood, Fort Lewis, Fort Richardson, Fort Riley, Fort Stewart

LANDFILL

1) NEW SOURCE PERFORMANCE STANDARD	PROMULGATED 40 CFR 60.30	PROMULGATED 12 MAR 96 COMPLIANCE DATE 12 MAR 99
2) EMISSIONS GUIDELINE	STATES ARE WRITING	DUE FROM STATES 12 DEC 96 COMPLIANCE DATE 12 MAR 99
3) NESHAP	FUTURE	SCHEDULED PROMULGATION 15 NOV 00 SCHEDULED COMPLIANCE 15 NOV 03

AFFECTED SOURCES DEFINED IN REGULATIONS

There is a small chance that the three regulations listed above may require monitoring or treatment of gas emitted from a landfill at your installation. The text below summarizes pollution control measures that these regulations may require at your installation's landfill, as well other known requirements.

1) New Source Performance Standards.

- USEPA promulgated these standards at (61 FR 9905, 12 MAR 96)
- Landfills meeting conditions A, B, and C below must install a below "Well designed and well operated gas collection system and a control device capable of reducing non-methane organic carbons in the collected gas 98 % by weight". (The paragraph titled "Description of gas collection and control systems" (below) includes USEPA's definition of such a collection and control system.).
- Landfills meeting conditions A and B below must monitor emissions annually.
- USEPA requires landfills currently meeting condition A and B but not C to begin operating the required gas emissions controls within 30 months of measuring emissions exceeding 50 megagrams/year.
- Conditions A, B, and C, for the New Source Performance Standard are…

A. Has been constructed or undergone "major reconstruction" since 30 May 1991
B. Maximum design capacity greater than 2.5 million cubic meters volume or 2.5 million megagrams mass
C. Non-Methane organic carbon air emissions exceed 50 megagrams/year

2) Emissions Guideline

- EPA has charged the States with preparing air emissions regulations for larger currently operating or recently closed landfills. EPA requires States to promulgate these rules by 12 December 1996.
- Operators of landfills meeting conditions A,B, and C (below) must monitor emissions annually.
- USEPA requires landfills currently meeting condition A,B, and C but not D (below) to begin operating the required gas emissions controls within 30 months of measuring emissions exceeding 50 megagrams/year.
- Operators of landfills meeting conditions A,B,C, and D (below) must control gas from that landfill with a "Well designed and well operated gas collection system and a control device capable of reducing non-methane organic carbons in the collected gas 98 % by weight". (The paragraph titled "Description of gas collection and control systems" (below) includes USEPA's definition of such a collection and control system.).
- Conditions A, B, C, and D, for the Emissions Guideline are…

A. Constructed or undergone "major reconstruction" prior to 30 May 1991
B. Most recently received waste after 8 November 1987 or has additional design capacity available for future waste deposition.
C. Maximum design capacity greater than 2.5 million cubic meters volume or 2.5 million megagrams

mass

D. Non methane organic carbon air emissions exceed 50 megagrams/year

3) NESHAP

USEPA is not scheduled to promulgate this regulation until 15 November 2000. If they decide that the New Source Performance Standard and Emissions Guideline sufficiently control HAPs from landfills, then they will not promulgate this NESHAP.

Description of air pollution controls that may be required

This description includes both the defintion of a "Well designed and well operated gas collection system and a control device capable of reducing non-methane organic carbons in the collected gas 98 % by weight", as well as additional information on the requirements of a landfill gas collection and control system.

A well designed and operated gas collection and control device must...

1. Be capable of handling the maximum expected gas generation rate
2. Have a design capable of monitoring and adjusting the operation of the system
3. Be able to collect gas effectively from all areas of the landfill that warrant control.
4. System must be capable of being expanded to cover cells that are newly closed or brought to level.

Features of a gas collection and control system.

Gas collection and control systems treat landfill gas by capturing gas emissions from the landfill and routing it into incinerators or other treatment devices. (See illustration 1 for a diagram of a typical landfill gas collection system.) This gas is generated by bacteria that consume material within the landfill. The gas collection and control system routes gas to the incinerator via pipes inserted horizontally or vertically into the landfill. A blower system draws the landfill gas into these pipes.

The most economically feasible treatment system is a function of the energy content of the gas. When the gas has a high energy content, a generator or boiler capable of recovering the energy contained within the gas is best. Incinerators are best for gasses that contain a moderate amount of energy. An activated carbon adsorption system is best for low energy gas streams. A source for detailed information on burning landfill gas streams for energy recovery is listed below.

The gas collection system usually only need operate over a small portion of the landfill at any one time. 60% to 90% of the landfill gas will be generated in the section of the landfill that has received waste within the last decade. Landfill gas generation models can help the installation locate the portion(s) of the landfill generated significant gas volumes. (See illustration 2 for a chart describing changes in composition of landfill gas as a function of time.)

The following additional practices may be required to control landfill gas.

1. A crack-sealing program. An unbroken layer of cover soil blocks gas from escaping the landfill interior, forcing it to flow into the landfill's gas collection pipes.
2. Ongoing saturation of natural soil barriers such as clay in caps and slurry walls to maintain their impermeability to gas.
3. Cover inactive portions of landfill with a low permeability, low porosity cap such as clay.

Cost:

Average cost is $20,000 per acre. Cost for systems that USEPA requires at superfund sites has been reported as high as $45,000 per acre.

Burning landfill gas for energy recovery.

Description: As mentioned above, some landfill gas streams
n enough energy rich gas to power engines or boilers. Call the
green lights program at 1-888-STAR-YES (1-888-782-7937) for
nformation on using landfill gas for power and steam
tion. Factors needed to make landfill gas-recovery systems
ically feasible include the following.

- Greater than 2 million tons refuse
- Greater than a 35 foot depth of waste
- Greater than 35 acres landfill area
- Refuse conducive to gas generation
- Continued landfill operation
- Short time lapse after closing for closed landfills

Monitoring/Record Keeping: Landfills greater than 2.5 million cubic meters volume or 2.5 million megagrams mass. Annual mass of refuse accepted. Percentage of non degradeable waste accepted. Age of waste in each portion of landfill. Percentage of degradeable waste in each portion of landfill. (Assume all waste degradeable if portion not known.) Monitoring of gas from sampling points may be required at some landfills.

Installations that may be affected by this NESHAP: Fort Benning, Fort Bliss, Fort Carson, Fort Riley, Fort Sill, Fort Stewart

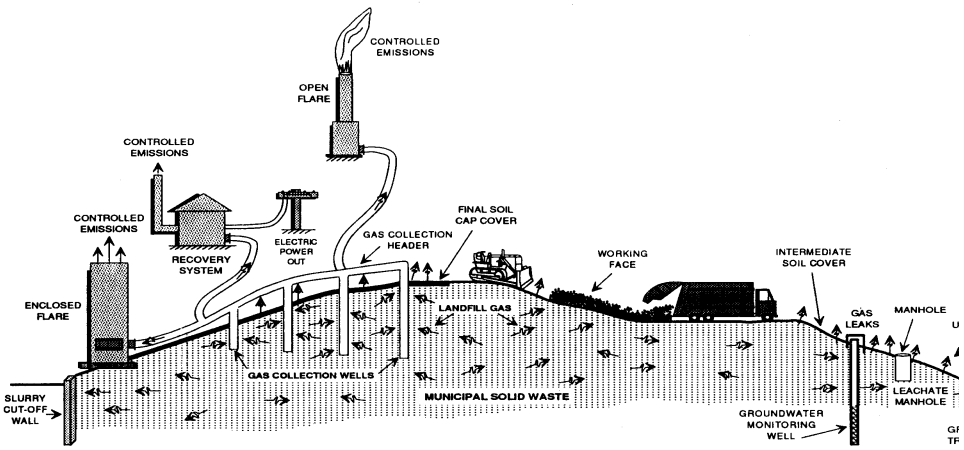


FIGURE 1. Municipal Solid Waste Landfill Gas Emissions

Illustration 1: Landfill Gas Control System

PRINTING AND PUBLISHING NESHAP	PROMULGATED 61 FR 27132 40 CFR Subpart KK 40 CFR 63.820	PROMULGATED: 30 MAY 96 COMPLY BY DATE: 30 MAY 99
MAJOR SOURCE – YES AREA SOURCE - NO		

Army activities affected[4]:. Rotagravure presses and associated equipment including proof presses, cylinder and parts cleaners, ink and solvent mixing and storage equipment, solvent recovery equipment.

Note small process exemption. Operators of printing processes meeting the definition of "small processes" need only comply with the material usage recording and source notification requirements of this NESHAP. 40 CFR 63.821 (b) defines small processes as those using (1) nor more than 500 kg. per month, for every month, of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials on product and packaging rotogravure or wide-web flexographic printing processes, or (2) applies no more than 400kg. per month, for every month, of organic HAP on product and packaging rotogravure or wide-web flexographic printing processes.

Air pollutant emissions controls required: Possible compliance options include switching to low HAP inks and cleaning solvents, capturing HAPs emitted by inks and cleaning solvents in drums of adsorbent carbon, or capturing and incinerating any HAPs emitted.

Low HAP inks and cleaning solvents.

Description: Attachments two and three to the "Printing and Publishing NESHAP" suggest the following inks and cleaning solvents as alternatives to those traditionally used.

1. Substitute water based inks for HAP bearing inks. USEPA notes that switching to water based inks requires reconfiguring the rollers as the water based inks penetrate slower than solvent based inks.
2. Run drying ovens longer. Water based inks dry more slowly than do solvent based inks.
3. Replace HAP containing cleaning solvents with aqueous solvents or mineral oil. USEPA notes several drawbacks in switching to aqueous cleaning solvents. These include d-limonene and n-methyl pyrrolidone. They are expensive, smell strongly, and only partially clean the printers. Generally, mineral solvents must be used in higher volumes than traditional cleaning solvents (toluene and MEK) in order to clean as well as the traditional solvents. Switching from toluene or MEK to mineral solvents may reduce the installations HAP emissions but increase their total VOC emissions.

Digital Imaging System

Digital Imaging Systems reduce the amount of air emissions and hazardous wastes generated producing

[4] AEC' supply of installation air emissions inventories indicate that all Army printing operations are low enough volume that this rule's small process exemption relieves them of air emissions control requirements. It is possible that an installation for which we do not have an emissions inventory consumes enough ink to require air emissions controls.

photographic prints and transparencies. System cost varies by application. A typical cost would be $200,000. POC is Mr. Michael Jones, Naval Air Warfare Center (732) 323-1936.

Monitoring/Record Keeping: Written records of paint, paint thinner, and solvent used by day and location.

Installations that may be affected by this NESHAP: AEC knows of none.

OFF-SITE WASTE AND RECOVERY OPERATIONS NESHAP	PROMULGATED 61 FR 34140 40 CFR 63.680 40 CFR 63 DD	PROMULGATION DATE: 01 JUL 96 COMPLIANCE DATE: 01 JUL 99 NOTIFICATION DATE: 28 OCT 96
MAJOR SOURCE – YES AREA SOURCE - NO		

Army activities that may be affected: This NESHAP may require notification and record-keeping at a few of the following kinds of Army activities. It will probably not require air emission controls at any Army facility.

1. Installation Defense Reutilization and Marketing Office operations.
2. Installation Part B permitted or interim hazardous waste storage sites.

How to determine if your installation includes affected sources: Part B hazardous waste storage facilities meeting all of the three following requirements are subject to this NESHAP.

1) This site is located on a portion of an installation that is or is required to be covered by a Title V permit. AND this portion of the installation is a "Major Source" for HAPs.

2) The site receives waste or recoverable material, waste oil, or waste solvents that were generated somewhere other than the activities that are covered by the same Title V permit as the Part B facility.

3) The waste or recoverable material, waste oil, or waste solvent contains one or more of the HAPs listed in Table 1 of 40 CFR 63 subpart DD.

Why this rule is expected to impose some paperwork requirements, but no air pollution control requirements, upon Army facilities: This rule intends to control volatile HAP emissions from large scale hazardous waste TSDFs. Army TSDFs handle only small amounts of wastes containing volatile HAPs. This rules' "small volume exemption" exempts facilities handling only small volumes of materials containing volatile HAPs from this rules' air pollution control requirements.
Additionally, this NESHAP exempts the Army's largest recipients of off-site hazardous waste, the munitions demilitarization facilities, from the requirements of this NESHAP. Instead, these facilities are subject to the Hazardous Waste Combustor NESHAP. If your facility does receive waste, waste oil, or waste solvents from off-site, and these materials contain volatile HAPs, be sure to comply with the notification and record-keeping requirements of this NESHAP. The notification date has passed. This date was 28 October 1996.

Facilities can exempt up to 1 Mega-gram (2,205lbs) per year of waste volatile HAPs generated off-site per year from the air pollution control requirements. The facility operator must mark portions of the facility handling exempt waste as exempt from the air pollution control requirements of this NESHAP. To obtain this exemption, the facility operator must record the following two pieces of data.

1) Amount of volatile HAP bearing waste received at the facility.
2) The mass percentage of volatile HAPs in each waste stream.

The facility operator must keep records demonstrating no more than 2,205 lbs of volatile HAPs in waste were handled as exempt waste. If your facility is subject to this data recording requirement, be sure to notify USEPA that your installation is subject to this NESHAP.

Facilities exempt from this NESHAP are the following.

1. Municipal solid waste landfill units (see 40 CFR 258.2)
2. Incinerators
3. Waste fueled boilers
4. State or municipality owned boilers. (see section 502(4) of the Clean Water Act)
5. Sites receiving only waste from hazardous waste remediation activities.
6. Underground components of injection wells used for disposal of waste.

Air pollutant emissions controls that may be required: Pollution controls include use of certain storage containers and routing all emissions to approved air pollution control devices. Good news for Army facilities is that containers smaller than 0.1 m^3 (26 gallons) in volume are exempt, and that the required control for containers smaller than 0.42 m^3 (111 gallons) is a DOT approved storage barrel. The same barrel required to transport hazardous wastes. Also note that biological treatment units and enclosed hazardous waste treatment units are exempt from this regulation.

Installations that may be affected by this NESHAP: The following installations have been identified as major HAP sources and have DRMOs; Fort Benning, Fort Bragg, Fort Hood, Fort Jackson Fort Lewis, McAlester Army Ammunition Plant, Red River Army Ammunition Plant, Redstone Arsenal, Fort Riley, Fort Stewart, Fort Wainwright

HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS		
NEW SOURCE PERFORMANCE STANDARD	PROMULGATED 62 FR 48347	PROMULGATED DATE: 15 SEPT 97 COMPLIANCE DATE: later of 6 MONTHS after startup or this regulation's promulgation
EMISSIONS GUIDELINE	PROMULGATED 62 FR 48347	PROMULGATED DATE: by 15 SEPT 98 COMPLIANCE DATE: 15 SEPT 00 . to 15 SEPT 02

ALL MEDICAL WASTE INCINERATORS

Army activities affected: The **Emission Guideline** affects each individual Hazardous/Medical/Infectious Waste Incinerator (HMIWI) for which construction was commenced on or before June 20, 1996. The **New Source Performance Standard** affects each individual HMIWI unit for which construction was commenced after June 20, 1996. Note that your incinerator is not subject to either this guideline or performance standard during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste (all defined in Sec. 60.51c) is burned, provided the owner or operator of the combustor:

(1) Notifies the Administrator of an exemption claim; and

(2) Keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned.

Compliance Strategies:

USACHPPM recommends investigating the following three methods of bringing your medical waste incinerator into compliance with this rule.

1) Contract with a medical waste disposal company to dispose of this waste. In some areas of the country, this is less expensive than paying upkeep and air pollution control costs for an incinerator. Contractor disposal costs include the cost of a refrigerator to store the waste between pick-ups.
2) Purchase a medical waste grinder and sterilizer.
3) Retrofit your incinerator with an air pollution control device and continuous emissions monitors.

Medical Waste Grinder and Sterilizers

Please contact 1Lt Lisa Strutz, USACHPPM, for information on the varieties and costs of these devices. 1Lt Strutz's phone number is com (410)436-3651 or DSN 584-3651.

Add on air pollution control devices

Packed bed scrubbers preceded by a gas cooler, such as a venturi scrubber, are generally used to control pollutants in medical waste incinerator exhaust. Costs for these devices, as a function of gas throughput volume, are shown below. These gas throughput volumes are representative of the throughput volumes typically seen at Army medical waste incinerators. Most installation medical waste incinerators can burn from 100 lbs./hr to 300 lbs./hr of medical waste. They tend to operate at gas flow rates of between 40,000 dry standard cubic feet per hour (dscf/hr) to 80,000 dscf/hr. 50,000 dscf/hr appears to be the most common flow rate.

Note: Seek advice from your medical waste incinerator manufacturer on which air pollution control device to install. Ms. Sherri Hutchens, the Army medical waste incinerator expert, notes that some medical waste incinerators are designed to operate with specific kinds of air pollution control devices.

Gas throughput volume (dscf/hr)	Estimated cost, packed bed scrubber preceded by Venturi
30,000	$ 835,000
40,000	$ 949,000
50,000	$1,050,000
60,000	$1,100,000
70,000	$1,200,000
80,000	$1,300,000
90,000	$1,400,000
100,000	$2,100,000

Additional Information on these rules: Contact Ms. Sherri Hutchens (USACHPPM) at (410) 436-8149/DSN 584-8149 or download report on DENIX or contact Mr. Rick Copland (USEPA) at (919) 541-5265.

Installations that may be affected by this NESHAP: Fort Benning, Fort Bragg, Fort Campbell, Fort Eustis, Fort Huachucha, Fort Leonard Wood, Fort McClellan, Fort Meade, Redstone Arsenal, Fort Riley, Fort Rucker, Fort Sill, Fort Stewart.

HAZARDOUS WASTE COMBUSTOR NESHAP	PROPOSED 61 FR 17358 62 FR 24211 PARTIAL PROMULGATION 63 FR 33781	PARTIAL PROMULGATION DATE: SCHEDULED PROMULGATION DATE: SCHEDULED COMPLIANCE DATE:	 19 JUNE 98 1 OCT 98 1 OCT 01
MAJOR SOURCE – YES **AREA SOURCE - YES**			

Army activities affected: Army demilitarization furnaces, slurry furnaces, and chemical demilitarization furnaces.

Air pollutant emissions controls that may be required Army hazardous waste combustors should be able to meet the new air pollution control requirements either with current equipment or by upgrading current baghouses. Estimated cost of replacing current NOMEX bags in baghouses with Teflon bags is $225,000. Please call Robert Davies, (540)639-7612 at Radford Army Ammunition Plant for more information on use of Teflon bags to control hazardous waste combustor emissions.
Note that the largest compliance cost for this NESHAP may be continuous emissions monitors. See the paragraph on monitoring below for an estimated cost for these devices.

Proposed Hazardous Waste Combustor Emissions Standards

	Existing Combustors
Dioxin/Furan (ng TEQ/dscm)	0.20
Mercury (microgram/dscm)	40
Particulate Matter(grains/dscf)	0.015
HCl/Cl2(ppmv)	75
CO(ppmv)	100
HC(ppmv)	10
SVM(ug/dscm)	100
LVM(ug/dscm)	55

Point of Contact for information on this rule:

Mr. Michael Pattison DSN 584-3500, com (410) 436-3500

Monitoring and record keeping that may be required
USEPA is still planning to require continuous emissions monitors for carbon monoxide, total hydrocarbons, oxygen, mercury, and particulate matter. An acceptable continuous emissions monitor for mercury has yet to be developed. USEPA believes that one will be developed before this rule's compliance date. Budget $500,000 to purchase and install these monitors.

Installations that may be affected by this NESHAP: Anniston Army Depot, Hawthorne Army Ammunition Plant, Lake City Army Ammunition Plant, Kansas Army Ammunition Plant, McAlester Army Ammunition Plant, Pine Bluff Arsenal, Radford Army Ammunition Plant, Fort Richardson, Sierra Army Ammunition Plant, Tooele Army Ammunition Plant

PUBLICLY OWNED TREATMENT WORKS NESHAP	SCHEDULED	SCHEDULED DATE: 01 JUN 99 COMPLY BY DATE: 01 JUN 02
MAJOR SOURCE – YES AREA SOURCE – NO		

Army activities affected: Industrial waste water treatment plants, possibly those at Radford Army Ammunition Plant, Holston Army Ammunition Plant, and Pine Bluff Arsenal. USEPA is currently considering requiring air emissions controls on waste-water treatment plants meeting at least two of the following three conditions. This rule is expected to affect Federally Owned Treatment Works (i.e. plants at Army installations) as well as Publicly Owned Treatment Works (POTWs).

1. The influent dry weather flow to the POTW is greater than 50 Million Gallons per day.
2. The influent volatile HAP concentration is greater than 5 parts per million by weight on an annual average basis.
3. The percentage of industrial contribution to the POTW's influent is greater than 30 percent.

AEC expects this regulation to only affect Army activities manufacturing organic chemicals. USEPA intends it to affect waste water treatment plants at manufacturing plants that make: organic chemicals, plastics, synthetic fibers, pesticides, pharmeceuticals, or that treat hazardous waste.

Air pollutant emissions controls that may be required:

Install oil/water separators in industrial waste-water drainage systems. Oil/water separators will remove hydrocarbons from the industrial waste before it reaches the waste-water treatment plant. Hydrocarbons will be pumped from separators and disposed of in a manner that stops HAP volatilization. The estimated cost of an oil/water separator is $500,000 per 1,000,000-gallon-per-day flow.

Pre-sort waste. Clean up spilled paint, solvents, and other volatile HAPs with rags instead of flushing into the industrial waste-water treatment plant.

Cover all portions of the waste-water treatment plant up to the biological treatment unit. Cover all; headworks, clarifiers, aeration beds, sludge treatment beds, sludge drying beds, holding ponds, pumps, canals, and Imhoff tanks. The covers will prevent hydrocarbons from volatilizing. It is especially important to cover areas where the waste water is churned or mixed. Churning and mixing enhances the rate at which HAPs desolubilize from the waste-water and escape to the atmosphere. The estimated cost is $200,000 per million-gallon-per-day flow.

Maintain seals and gaskets on waste water pumps.

Notes on MACT development

USEPA initially intended to promulgate this MACT by 15 November 1995. They have had to delay promulgation of this MACT by several years to develop feasible air pollution controls for waste-water treatment plants.

Installations that may be affected by this NESHAP: Radford Army Ammunition Plant, Holston Army Ammunition Plant, Pine Bluff Arsenal

MISCELLANEOUS METAL PARTS AND PRODUCTS NESHAP & PAINT STRIPPER USERS NESHAP	FUTURE	SCHEDULED PROMULGATION: 15 NOV 00 SCHEDULED COMPLIANCE DATE: 15 NOV 03
MAJOR SOURCE – YES AREA SOURCE – TBA		

Army activities that may be affected: Tactical vehicle and munitions manufacturing and rework operations including painting, paint stripping, surface treatment, priming, cleaning, and possibly degreasing of parts.

Expected Compliance Requirements

AEC expects that these two NESHAPs will require replacing paints, primers, solvents, and cleansers currently used at metal parts and vehicle surface coating operations with low HAP formulations of these materials. Some low HAP cleansers require cleaning equipment, such as aqueous parts washers. It may also limit all painting and depainting to within paint booths. [5]

[5] Painting, cleaning, degreasing, and depainting emit significant amounts of organic and inorganic HAPs into the atmosphere.
Paints, primers, solvents, and degreasers are large sources of HAPs as they are usually comprised of 50% to 100% organic HAPs by volume. The HAPs in these materials volatilize into the atmosphere as a normal part of their use. The process of paint drying consists of the solvents evaporating into the atmosphere while the particles comprising the solids portion of the paint bind to one another. Solvents and cleaners clean parts by solubulizing the dirt, grease, and paint that has adhered to a part. Technicians remove dirt, paint, and grease from a part by applying a solvent, generally a liquid, to the part and waiting while the dirt, grease, or paint that had adhered to the part solubulizes into the liquid solvent. The technician then wipes the part clean of the solution of solvent, dirt, paint, and grease. Technicians prefer to use solvents with high vapor pressure, as high vapor pressure solvents evaporate quickly, leaving the part clean and dry after the technician uses the solvent to clean the part. Most of the parts cleaning solvent evaporates.

Painting and depainting are also significant sources of inorganic HAPs. The solids portion of paints includes inorganic HAPs such as lead, chromium, and cadmium. When workers spray paint onto the surface of a vehicle or onto vehicle parts, only about half of the paint sticks to the vehicle or part, while the other half escapes in a cloud of particulate into the atmosphere. The portion of the paint that escapes is called “overspray”. The paint particulate that escapes into the atmosphere carries inorganic HAPs into the atmosphere. Removing paint from a vehicle also emits inorganic HAPs into the atmosphere. When workers remove paint from vehicles and parts, they commonly scrape the paint away by blasting the surface with a stream of abrasive powder or sanding the surface with a sheet of abrasive material. The paint dust scraped from equipment and parts contains organic HAPs. When this dust escapes into the atmosphere, it carries inorganic HAPs with it. To control inorganic HAPs from painting and depainting, this NESHAP requires painting and depainting within a structure whose exhaust vents to high efficiency particle filters.

Army needs your help to ensure that low HAP topcoats, primers, cleansers, and degreasers are available to replace currently used formulations of these materials. Please canvas your installation's vehicle maintenance operations to determine if these operations use paints, primers, solvents or cleansers containing HAPs. The most common HAPs found in these materials include Methyl Ethyl Ketone, Methyl Iso-butyl Ketone, Methylene Chloride, and Ethylene Glycol. Army must find substitutes for HAP bearing paints, solvents, and cleansers. Finding and proving an acceptable replacement can take many years and hundreds of thousands of dollars. Army must begin finding substitutes to be prepared to comply with this rule. Please report the use of any HAP bearing paints, solvents, or cleansers to Dr. David Reed, USACHPPM DSN 584-3500, com (410) 436-3500 or Paul Josephson DSN 584-1205, com (410) 436-1205.

DoD POCs who are working with USEPA to develop these two rules

Miscellaneous Metal Parts And Products	Dr. David Reed USACHPPM (410)436-3500 DSN 584-3500
Solvent Users	Ms. Lisa Trembly Navy Facility Engineering Support Center (805) 982-3567 DSN 551-3567

aterials, Equipment, and POCs that can assist you in developing a compliance plan for this NESHAP

This section provides points of contact to help you identify and implement lower HAP formulations of currently used vehicle maintenance materials. It also provides cost information for paint booths and HAP control devices.

Tank and Automotive Command Environmental Office

Mr. Joseph Krawciw DSN 786-5124

Industrial Operations Command Pollution Prevention Center of Technical Expertise POCs who can assist you in identifying and implementing low cost Aerospace NESHAP control methods.

Solvent Cleaning	Charles Gawenis	(512)939-4170 DSN 861
Mechanical Depainting	Steve Guthrie	(205)235-6624 DSN 571
Mechanical Depainting	Mark Crawford	(903) 334-4008 DSN 829
Chemical Depainting	Ron Scarnulis	(717) 895-8223 DSN 795
Low VOC/HAP CARC	Dennis Reed	(717) 267-9506 DSN 570

Also

Low VOC/HAP CARC	Bruce Anderson	(713) 621-1620 (Fort Bliss)

New 1.8 lb/gallon VOC CARC

Jeff Duncan	(410) 306-0690 DSN 654
John Escarsega	(410) 306-0693 DSN 654

Alternative Solvents and Cleaners

A.J. Walker (410) 436-6863 DSN 584

AEC P2 Implementation Team

Note, before you can substitute a lower polluting material for the material currently used to maintain an item, you must obtain approval of the item's program manager. (i.e. If you wish to switch the depainting method on an OH-58C helicopter, either you must obtain the permission of the program manager for the OH-58C, or the alternate material or method must be listed in the item's technical manual.) For help in winning the program manager's approval for an alternative maintenance method or material please call Mr. Dean Hutchins, USAEC, at (410) 436-6855, DSN 584-6855

Web sites listing lower polluting maintenance materials and maintenance methods

http://www.jgapp.com/pilotma3.htm

http://enviro.nfesc.navy.mil/p2library/

http://es.inel.gov/hssds/

GSA catalog of environmentally friendly products.

Contact one of the following Regional POCs for a copy of the General Services Administration "Environmental Products Guide".

Washington D.C.	1-800-848-8928
Northeast	(215) 656-3892
Palmetto, GA	(404) 463-6010
Chicago, IL	(708) 396-3350
Ft. Worth/Denver	(817) 334-5387
Stockton, CA	(209) 946-6388/6389
Auburn, WA	(206) 931-7478

Low HAP Chemical Agent Resistance Coating (CARC) paints. So far, USEPA has agreed to exempt CARC from requirements of the surface coating NESHAPs. CARC is the required surface coating for all tactical vehicles. .If CARC is regulated by the Automobile/Light Truck Surface Coating NESHAP, there are low HAP CARC formulations available. CARC is available in both a 3.5 lbs/gallon formulation and a 1.8 lbs/gallon.

Current low HAP CARC paints (3.5 lbs/gallon) stocked by GSA include the following

NSN	SIZE	COLOR	
8010-01-435-2134	GL	Brown 383	705-321
8010-01-435-2122	CN (5 GL)	Brown 383	705-321
8010-01-435-2133	GL	Tan 686A	705-134
8010-01-435-2137	CN (5 GL)	Tan 686A	705-134
8010-01-435-2129	GL	Green 383	705-606
8010-01-435-2124	CN (5 GL)	Green 383	705-606
8010-01-435-2135	GL	Black	705-616
8010-01-435-2135	CN (5 GL)	Black	705-616

Points of Contact: Mr. Jeff Duncan, Army Research Laboratory, (410) 306-0690 DSN 654, John Escarsega

(410) 306-0693 DSN 654 or Ms. Donna Snyder, General Services Administration, (206) 931-7899.

High Volume Low Pressure (HVLP) spray paint guns.

Description: Switching to low VOC CARCs, primers, and surface washes will also require new topcoat application methods and equipment. Installations may be required to purchase High Volume-Low Pressure spray paint guns. They will also be required to train their personnel to apply the low VOC surface coats. Installations that have adopted low VOC surface coats in the past have needed several months to retrain their painters to apply low VOC CARC.

Note that some installations have found HVLP guns to splatter and/or apply paint too thickly. Mr. Reed and Mr. Bruce Anderson (see POCs) can provide guidance on the benefits and drawbacks of HVLP guns.
Costs: HVLP guns cost approximately $700 each.

Points of Contact: Mr. Dennis Reed DSN 570-9506, Com (717) 267-9506, Mr. Bruce Anderson (915) 778-7885

Low VOC spray paint cleaning equipment.

Description: Cleaning Unit. Decreases percentage of paint lost to atmosphere.
Cost: Cleaning units cost approximately $900 each. One time cost.
Point of Contact, Ms. Susan Scheiche, Fort Lewis, DSN 357-5337, Com (206) 967-5337.

Capture and Control type air pollution control devices: This NESHAP may require a few installations to install volatile HAP controls and/or additional paint booths and particulate matter controls.

organic HAP controls

Purchasing and installing an abrasives blasting depainting unit generally costs between $150,000 and $200,000. This cost includes blasting equipment, a paint stripping enclosure, and blasting media recycle system.

A paint booth with dry filters costs approximately $200,000.

Volatile HAP controls.

The Split-flow ventilation and recirculation paint booth being developed by USEPA and the U.S. Air Force. This booth includes an innovative pollutant separation mechanism to reduce air pollution control costs. Capital costs (which includes purchase, design and installation costs as of 1994) for both the split flow ventilation and the incinerator are estimated to be as follows. Estimate is for a paint booth measuring 25' long by 18' wide by 14' tall. (S. Hughes, J. Ayer, R. Sutay, Demonstration of Split-Flow Ventilation and Recirculation as Flow-Reduction Methods in an Air Force Paint Spray Booth. Armstrong Laboratory Environics Directorate AL/EQS-OL, July 1994) POC s
Dr. Joseph Wander (850) 283-6240.
Mr. Randall Spencer (760)577-7777 DSN 282-7777

Thermal Incineration

Flow rate (scfm)	Capital Costs	Operating Costs (per year)
30,000	$392,000	$383,000
15,000	$387,000	$232,000
7,500	$333,000	$147,000
3,000	$275,000	$ 91,000

Catalytic Incineration

Flow rate (scfm)	Capital Costs	Operating Costs (per year)
30,000	$550,000	$297,000
15,000	$471,000	$192,000
7,500	$368,000	$127,000
3,000	$270,000	$ 81,000

Depot level paint booths. A few installations have installed air pollution control devices capable of collecting and destroying greater than 99% of volatile HAPs emitted from surface coating operations. These have been required by local volatile organic carbon control regulations rather than a NESHAP. The capital cost for these air pollution control devices, which are big enough to fit booths capable of simultaneously painting four to six large vehicles at a time, run from $3,000,000 to $6,000,000. These costs vary with workload and difficulty of retrofit.

Monitoring/Record Keeping: Written records of paint, paint thinner, and solvent used by day and location.

Installations that may be affected by this NESHAP: Anniston Army Depot, Fort Benning, Fort Bliss, Fort Bragg, Fort Campbell, Fort Eustis, Fort Hood, Fort Jackson, Fort Knox, Fort Leonard Wood, Fort Lewis, Lima Army Tank Plant, Radford Army Ammunition Plant, Red River Army Depot, Fort Richardson, Fort Riley, Rock Island Arsenal, Fort Sam Houston, Fort Stewart, Yuma Proving Ground.

SCRAP TIRE BURNING NESHAP	FUTURE	SCHEDULED PROMULGATION: 15 NOV 00 SCHEDULED COMPLY BY DATE: 15 NOV 03
MAJOR SOURCE – YES AREA SOURCE - TBA		

Army activities that may be affected: Facilities burning scrap tires

Air Pollution Control Devices that may be required : **AEC expects that this NESHAP may require scrap tire burners to modify their operations in one or more of the following ways**

Spray tires with water as they burn
Forbid scrap tire combustion altogether. (i.e. EPA will work with industry and DoD to identify alternative methods of disposing of scrap tires.

ENGINE TEST FACILITIES	FUTURE	SCHEDULED PROMULGATION: 15 NOV 00 SCHEDULED COMPLIANCE DATE: 15 NOV 03
MAJOR SOURCE - YES AREA SOURCE - TBA		

Army activities that may be affected: Test facilities for turbine and internal combustion engines.

Air pollutant emissions controls that may be required: Pollution prevention measures, possibly including requirements for changes to fuels, engine tuning requirements, or others. Control measures such as water or steam injection into engines, or catalytic converters.

Catalytic Converters

Description: Catalytic converters catalyze reactions that break down larger, toxic, combustion products into smaller, non-toxic, chemicals. Other react the pollutant with another chemical, then precipitate the product of the pollutant and chemical from the exhaust stream. Approximate cost $200,000 each.

Water and Steam injection for turbine engines

Description: According to AP-42, water injection reduces distillate fuel fired turbine engine organic carbon emissions by 73%. AP-42 sites a system injecting a water/fuel ratio of 0.8/1.
Cost: $10,000 per engine test cell.

Engine tuning requirements. Researchers are investigating those combinations of compression ratio, spark timing, fuel, and air that minimize HAPs emissions from engine exhaust.

Fuels. Some fuels may produce fewer HAPs than others when combusted in internal combustion engines.

Monitoring/Record Keeping: Written records of engine tested, hours operated, fuel type used, control device function.

Installations that may be affected by this NESHAP: Anniston Army Depot, Fort Bliss, Fort Bragg, Fort Campbell, Fort Carson, Corpus Christi Army Depot, Fort Drum, Fort Eustis, Fort Hood, Fort Irwin, Fort Knox, Fort Lee, Fort Lewis, Lima Army Tank Plant, Red River Army Depot, Fort Richardson, Fort Sill, Yuma Proving Ground, Aberdeen Proving Ground

EXPLOSIVES MANUFACTURING NESHAP (Part of the Miscellaneous Organics Manufacturing NESHAP)	FUTURE	SCHEDULED PROMULGATION: 15 NOV 00 SCHEDULED COMPLIANCE DATE: 15 NOV 03
MAJOR SOURCE – YES AREA SOURCE - NO		

Army activities affected: AEC does not believe that the Explosives Manufacturing NESHAP will regulate any Army explosives manufacturing plants. USEPA included explosives manufacturing as an activity to be regulated by a NESHAP because an article in the Kirk-Othmer Chemical Process encyclopaedia identified this process as a source of Phosphorous emissions to wastewater. Phosphorous is a HAP. USEPA reasoned that explosives manufacturing may also emit phosphorous to the air. Current air emissions show Army explosives manufacturing operations emitting almost no phosphorous, and insignificant amounts of other HAPs. DoD is working with USEPA to remove explosives manufacturing from the list of activities regulated by the Miscellaneous Organics Manufacturing NESHAP. AEC will keep Army installations informed of this effort.

Point of Contact:

Mr. James Pinto, Indian Head Division, Naval Surface Warfare Center (301) 743-6747

USEPA posts descriptions of their progress in creating the Miscellaneous Organics NESHAP to the web site:

http://www.epa.gov/ttn/oarpg/t3pgm.html

GASOLINE DISTRIBUTION FACILITIES	PROMULGATED 59 FR 64303 40 CFR 63.420 40 CFR 63 Subpart R	DATE PROMULGATED: 14 DEC 94 COMPLIANCE DATE: 14 DEC 97 NOTIFICATION DATE: 16 DEC 96
MAJOR SOURCE - YES AREA SOURCE - NO		

Army activities affected: AEC believes that no Army activities are affected. This NESHAP regulates "Bulk Gasoline Terminals and "Pipeline Breakout Stations". AEC knows of no Army gasoline storage and distribution facilities meeting either of these two activities definitions. USEPA defines these two activities as follows.

Bulk Gasoline Terminal: means any gasoline facility which receives gasoline by pipeline, ship or barge, and has a gasoline throughput greater than 75,700 liters (20,000 gallons) per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal, State, or local law and discoverable by the Administrator and any other person. (from 40 CFR 60, subpart XX)

Pipeline Breakout Station: means a facility along a pipeline containing storage vessels used to relieve surges or receive and store gasoline from the pipeline for reinjection and continued transportation by pipeline or to other facilities. (From 40 CFR 63 subpart R)

STATIONARY INTERNAL COMBUSTION ENGINES/ STATIONARY TURBINES NESHAP	FUTURE	SCHEDULED PROMULGATION: 15 NOV 00 SCHEDULED COMPLIANCE DATE: 15 NOV 03
MAJOR SOURCE - YES AREA SOURCE – TBA		

Army activities affected: Field power generators and back up electrical generators.

Air Pollution Controls that may be required: AEC believes that this rule will require manufacturers to build lower polluting engines and turbines. It will probably also require users of these devices to regularly maintain and tune them. This NESHAP could require catalytic converters on generators.
Manufacturing stationary engines and turbines to high tolerances, and keeping them tuned, is the most effective method to reduce emissions of Volatile Organic Carbons (VOCs) and HAPs from these devices. This is why the State of California established manufacturing and operating standards for stationary internal combustion engines and turbines as part of their VOC control strategy. In the future, your installation may be required to prove that all of its new generators and turbines meet manufacturing and maintenance requirements.

Further Information: The Industrial Combined Coordinated Rulemaking committee periodically issues progress reports describing the development of this rule. You may find this information on the world wide web at http://www.epa.gov/ttn/iccr

INDUSTRIAL BOILERS/ INSTITUTIONAL BOILERS/ COMMERCIAL BOILERS/ PROCESS HEATERS **NESHAP**	FUTURE	SCHEDULED PROMULGATION DATE: 15 NOV 00 SCHEDULED COMPLIANCE DATE: 15 NOV 03
MAJOR SOURCE – YES AREA SOURCE – TO BE DECIDED		

Army activities affected: Until USEPA proposes this MACT, USAEC is assuming that it will regulate coal boilers rated greater than 100MMBTU/hr and industrial waste fired heaters. We make this assumption about coal fired boilers as the USEPA report "Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units – Final Report to Congress." EPA-453/R-98-004a. February 1998 found boilers to be a significant source of mercury. Our assumption that industrial waste fired boilers will be regulated arises from USEPA's concern that industrial waste boilers emit many HAPs. AEC does not expect these rules to require controls for natural gas fired boilers nor fuel oil fired boilers. The report referenced above indicated that HAPs emissions from these sources pose little risk to human health.

Air pollutant emissions controls that may be required Boiler HAPs emissions controls that may be required include powdered adsorbent injection, purchasing coal that has been cleaned of mercury, flue gas desulfurization(wet scrubbers), improvements to baghouses, and retrofitting boilers with coal gassification processes. HAPs of concern include mercury, dioxins/furans, arsenic and, to a small extent, lead and nickel. AEC has extracted these lists of possible boiler HAP control methods and HAPs of concern from the USEPA report "Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units – Final Report to Congress." EPA-453/R-98-004a. February 1998. This report is one of a series of health risk assessment reports that USEPA will publish as they study the health risks of boiler HAP emissions. Following the discussion of air pollution control technologies below, this document includes a short discussion of USEPA's level of certainty regarding which HAPs are emitted by boilers and the efficacy of these air pollution control methods in controlling these HAPs.

Powdered Adsorbent Injection: These systems capture pollutants by spraying powdered adsorbent material into a polluted exhaust stream. Pollutants adsorb to the powder as it travels through the exhaust. The powder, along with the pollutants adsorbed to it, are captured in a particulate matter collection device. Different pollutants are adsorbed by different powdered adsorbents. Activated carbon powder has been found to be effective against dioxin/furans. Sodium sulfite has been found to adsorb mercury in some applications. However, the report above noted that there is no clear evidence that sodium sulfite, or any other adsorbent, adsorbs mercury in boiler emissions. A few companies sell powdered adsorbent metering systems capable of continuously and automatically injecting sufficient adsorbent powder into a boiler exhaust stream to remove a majority of the dioxins, furans and metals. These systems will cost approximately $100,000 per boiler to purchase and install. A year supply of activated carbon and acid neutralizing powder typically cost from $10,000 to $20,000. Illustration 1 below shows a picture of the Calgon powdered activated carbon metering system. See illustration 1 for a picture of a powdered adsorbent metering system.

Purchasing coal that has been cleaned of mercury: According to USEPA, researchers are attempting to develop commercially viable methods to clean coal of most of its mercury content. Mercury is present in trace amounts in coal.

Baghouses. According to USEPA, researchers are trying to develop baghouses that can capture the mercury in the boiler air emissions stream. As teflon bags are the most efficient bags currently available, we are providing an estimated cost to retrofit current baghouses with teflon bags. Baghouse cost includes purchase cost, cost to retrofit, and first year operations costs. These costs should be accurate to +/-30%.

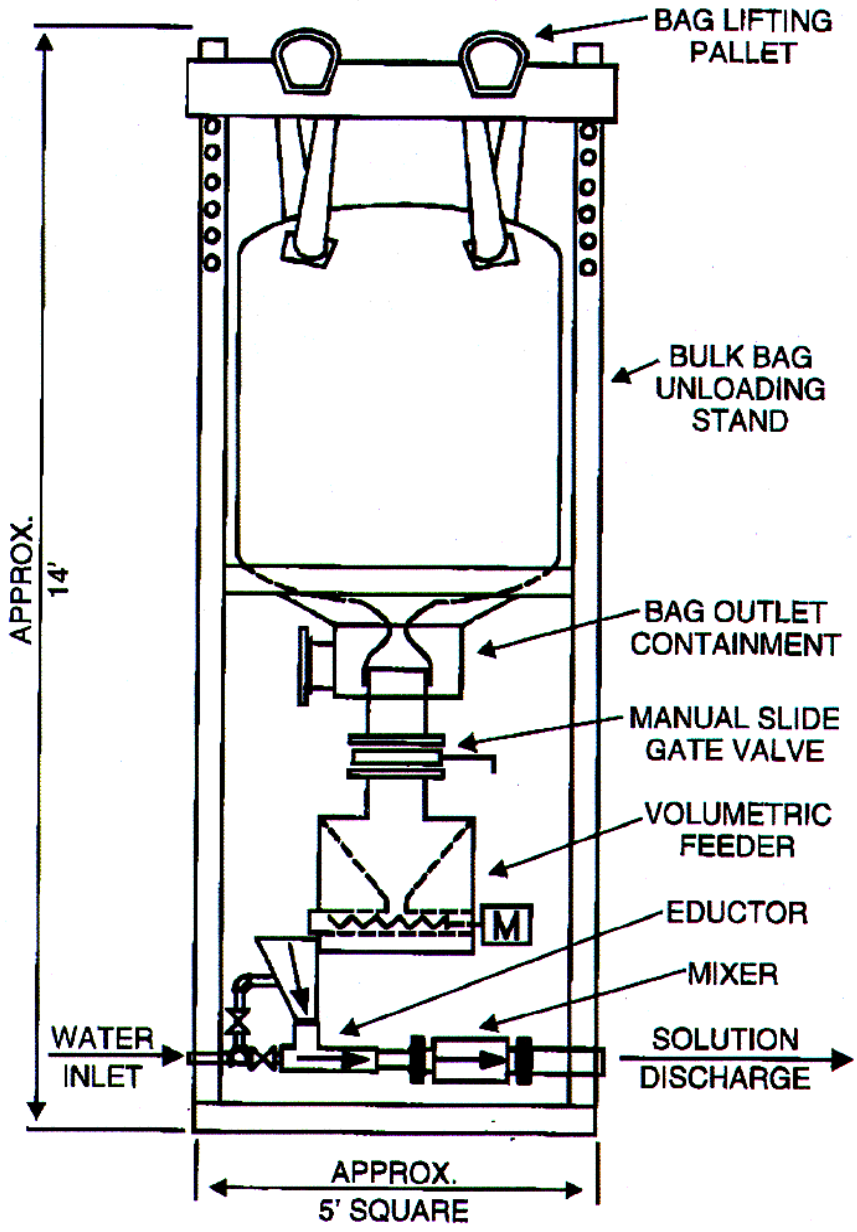
Boiler Size	Baghouse retrofit cost	First year operations cost
100 MMBTU/hr	$78,000	$46,000
110 MMBTU/hr	$86,000	$48,000
120 MMBTU/hr	$94,000	$50,000
130 MMBTU/hr	$102,000	$52,000
140 MMBTU/hr	$110,000	$54,000
150 MMBTU/hr	$117,000	$56,000
160 MMBTU/hr	$125,000	$58,000
170 MMBTU/hr	$133,000	$60,000
180 MMBTU/hr	$141,000	$62,000
190 MMBTU/hr	$148,000	$64,000
200 MMBTU/hr	$156,000	$66,000
210 MMBTU/hr	$164,000	$68,000
220 MMBTU/hr	$172,000	$70,000
230 MMBTU/hr	$180,000	$72,000
240 MMBTU/hr	$187,000	$74,000

Wet Scrubbing: For those boilers already controlled by a wet scrubber, the most cost effective method to control mercury may be to add lime to the scrubber water.

Monitoring and record keeping that may be required: This NESHAP may require a Continuous Emissions Monitor for Mercury. This NESHAP may require a one time collection and analysis of emissions samples to verify that the boiler's emissions meet any limits. Facilities operating one or more coal boilers rated greater than 100 MMBTU/hr should budget $120,000/boiler for a mercury continuous emissions monitor and $10,000/boiler for an initial emissions sampling and analysis in FY 2003.

Additional information on developing boiler standards: USEPA has convened a panel of USEPA and State regulators, potentially affected industry and government entities, and other citizens to determine how best to protect public health from boiler HAPs. This committee is called the Industrial Combustion Coordinated Rule-making (ICCR) committee. Over the next few years they will be collecting data on HAP emissions from boilers, and existing control technologies. Ultimately, they will use this information in preparing these NESHAPs. ICCR information is available at their homepage http://www.epa.gov/ttn/iccr

Installations that may be affected by this NESHAP: Holston Army Ammunition Plant, Iowa Army Ammunition Plant, McAlestar Army Ammunition Plant, Milan Army Ammunition Plant, Pine Bluff Arsenal, Radford Army Ammunition Plant, Red River Army Ammunition Plant, Rock Island Army Ammunition Plant, Watervliet Arsenal, Picatinny Arsenal, Fort Bragg, Fort Campbell, Fort Knox, Fort Lewis, Fort Richardson, Fort Stewart, Fort Wainwright, Fort Greeley


BAG LIFTING PALLET
BULK BAG UNLOADING STAND
BAG OUTLET CONTAINMENT
MANUAL SLIDE GATE VALVE
VOLUMETRIC FEEDER
EDUCTOR
MIXER
M
WATER INLET
SOLUTION DISCHARGE
APPROX. 14'
APPROX. 5' SQUARE

ROCKET MOTOR FIRING AND TESTING NESHAP	FUTURE	SCHEDULED PROMULGATION DATE: 15 NOV 00 SCHEDULED COMPLIANCE DATE: 15 NOV 03
MAJOR SOURCE – YES **AREA SOURCE - YES**		

Army activities affected: Rocket engine testing facilities

Air pollutant emissions controls that may be required. USEPA is investigating pollution prevention measures that will reduce HAPs emissions from testing of Rocket Engines.

Dennis Sorges, NAWC China Lake (760) 939-7252

Installations that may be affected by this NESHAP: Redstone Arsenal, Letterkenny Army Depot, McAlester Army Ammunition Plant, White Sands Missile Range.

STAGE I LEADED AVIATION GASOLINE DISTRIBUTION NESHAP	FUTURE	SCHEDULED PROMULGATION: 15 NOV 00 SCHEDULED COMPLY BY DATE: 15 NOV 03
MAJOR SOURCE - YES AREA SOURCE - TBA		

Army activities affected:. AEC believes that only leaded aviation gas manufacturing and bulk distribution centers will be subject to this NESHAP. Stage I fueling facilities are manufacturing and bulk storage facilities. Army does not operate these sorts of facilities. EPA defines a "Bulk Gasoline Terminal" as follows.

Bulk Gasoline Terminal: means any gasoline facility which receives gasoline by pipeline, ship or barge, and has a gasoline throughput greater than 75,700 liters (20,000 gallons) per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal, State, or local law and discoverable by the Administrator and any other person. (from 40 CFR 60, subpart XX)

Avoiding the requirements of NESHAPs by reducing your HAPs emissions

1. **Introduction:** Most NESHAPs only affect installations meeting USEPA's definition of "major source for HAPs". If your installation currently meets this definition, (see paragraph 2. below for USEPA's definition of "major source for HAPs") you may be able to rewrite your Title V permit, and or implement pollution prevention measures, to make your installation a HAP minor source. Being a true or synthetic minor HAP source will relieve your installation of the cost and manpower burden of complying with the major source NESHAPs. This guidance explains how you may be able to reduce your installation's HAP Potential To Emit (PTE) from major to minor.

2. **Definition of HAP major source.** Section 112 (a) (1) and (2) of the Clean air act define a "Major Source" for HAPs and "Area Source" for HAPs as follows.
    a. MAJOR SOURCE for HAPs. –The term 'major source' means any stationary source or group of stationary sources located within a contiguous area and under common control that emits, or has the *potential to emit (PTE) considering controls*, in the aggregate, 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAPs. The Administrator may establish a lesser quantity, or in the case of radionuclides different criteria, for a major source than that specified in the previous sentence, on the basis of the potency of the air pollutant, persistence, potential for bioaccumulation, other characteristics of the air pollutant, or other relevant factors.
    b. AREA SOURCE for HAPs. –The term 'area source' means any stationary source of hazardous air pollutants that is not a major source. For purposes of this section, the term 'area source' shall not include motor vehicles or nonroad vehicles subject to regulations under title II.
    c. Potential to Emit: Means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the Administrator.

1. **Use USEPA's PTE transition policy to reduce your installation's HAPs emissions status from "Major Source" to "Minor Source".** USEPA's January 25, 1995 Potential to Emit Transition Policy and Clarification of Interim Policy allows installations meeting the two requirements at the end of this paragraph to be considered minor HAPs sources. This policy is known

informally as the “50/50 rule”. AEC has included this policy at enclosure 3. USEPA’s notice extending this guidance’s effective date to 31 December 1999 is enclosure 4. Caution: This is only an interim policy. The two requirements are...

a. Sources that maintain adequate records to demonstrate that their actual emissions are less than 50 percent of the applicable major source threshold, and have continued to operate at less than 50 percent of the threshold since January 1994, or

b. Sources with actual emissions between 50-100 percent of the threshold, but which hold State-enforceable limits that are enforceable as a practical matter.

1. **Reducing your HAPs PTE, without constricting your mission, by including operating limits on your HAPs emitting activities in your title V permit.** If your installation’s PTE exceeds the major source for HAPs thresholds, but your actual emissions fall below these thresholds, USEPA allows your installation to avoid being a major source for HAPs by accepting usage limits on your installation’s air polluting activities. For example, if the PTE for a paint booth at your installation was calculated as if the booth operated 24 hours per day, but the most it would ever operate would be 8 hours a day, you can reduce the booth’s PTE without restricting its actual work-load by establishing 8 hours per day as the daily limit on the number of hours the paint booth could operate per day. By setting these usage limits above the level that is required at your installation, but low enough to hold these activities’ total HAPs PTE to below the major source threshold, your installation can continue to operate normally while avoiding the requirement to comply with any major source NESHAP. Operating limits that can reduce your installation’s PTE to below the major source thresholds include limits on the hours that a facility may be operated per day, the amount of material used per day, or the amount of product produced per day. Good candidates for operating limits include: painting booths, architectural painting, pesticide applications, and gasoline fueling stations. At most installations, these are the predominant HAP sources. Typical Title V permit operational limits include the following.

a. Operating hours

b. Number of units processed
c. Amount of material (such as paint or solvent) used per day.d.
d. Percentage of HAPs in material used. (i.e. require use of low VOC paint or non-halogenated solvents

1. A caution on setting operational limits. **Be sure to set these operating limits high enough to accommodate additional training or production that may be required for mobilization. If mobilization requires the installation to exceed the permitted operating limits, the installation must obtain an approved Title V major source permit and conduct a New Source Review study before environmental regulators can allow them to increase their operating hours. A regulator approved Title V and New Source Review permit generally require a few years to obtain. They may require additional air pollution controls at an installation.**

2. Reduce PTE based on the air emissions sources logistical limits. **EPA understands that processes can not operate 24 hours per day, 365 days per year, because of logistical limits. These limits include periodic shut downs for maintenance and to transfer pieces of equipment being processed from one process to another. One example of logistical limits would be the need to shut down a vehicle paint booth while exchanging the freshly painted vehicle for the vehicle to be painted**

3. **Reduce HAPs PTE through Pollution Prevention:** Replace the HAP emitting materials that you currently use with lower HAP formulations.
   a. See the information sheets on surface coating and halogenated solvent degreasing for information on low HAP formulations of vehicle and vehicle part surface coats, cleaners, and solvents.
   b. For architectural paints and solvents see the General Service Administrations "Environmental Products Guide", and "Commercial Architectural Paint Products". Call 1-800-848-8928 for a copy of the Environmental Products Guide, call (206) 931-7028/7026 for a copy of the Commercial Architectural Paints Guide.
   c. For water based pesticides, call Dr. Stephen Bennett, U.S. Army Environmental Center, com (410) 436-1565, DSN 584-1565.
   d. For low HAP/VOC asphalt –asphalt can be a huge source of HAPs at an installation – call Mr. Carlos Rosenberger of the Asphalt Institute (717) 432-5965.

1. **Only count emissions from Stationary Sources towards your installation's PTE:** Stationary sources are sources that are not mobile sources and not portable sources. A mobile source is a power plant for a vehicle, such as the piston engine in a truck or the turbine engine in a helicopter. A portable source is a power generator that is moved periodically. (i.e. it is not permanently fastened to another piece of equipment or to a foundation.) For example, Potential HAP emissions from the following sources do not count towards your installation's total PTE for the purpose of determining if your installation is a "Major Source" of HAPs.

   a. Aircraft (including helicopter) take-offs and landings
   b. Vehicle engine emissions. (Emissions from the engine propelling the vehicle.)

c. Emissions from "portable" generators. A portable generator is a generator that can be lifted without a mechanical device, such as a crane. These sources are considered to be "portable" sources and not stationary sources. See enclosure 5 for a discussion of the lawsuit that resulted in portable generators being ruled portable sources.

1. **Splitting your installation up into more than one source**. If your installation includes tenants from other services or other Defense Agencies (such as an AAFES gas station), your State regulator may allow you to split your installation up into more than one HAP source. Each of these sources would be evaluated independently for major source status. When splitting up your installation into more than one HAP source, follow the restrictions given in the USEPA memorandum "Major Source Determinations for Military Installations under the Air Toxics, New Source Review, and Title V Operating Permit Programs of the Clean Air Act (Act)" John S. Seitz, Director Office of Air Quality Planning and Standards (MD-10). See section III A. "Common Control Determinations" of enclosure 6 for the section of the EPA document that describes splitting up an installation into multiple sources of HAPs.

   a. When you split the installation into more than one HAP source, the USEPA guidance requires that each HAP source have "common command and control". Specifically, each HAP source must comprise all stationary sources on the installation controlled by one of the following services: Army, Navy, Air Force, Marines, or National Guard. Additionally, all defense agency activities at an installation (see figure 2 page 6 of enclosure 6 for a list of defense agencies) can be grouped together as one HAP source. For example, a base consisting of a Navy and an Army Installation could split the Army facilities from the Navy facilities so that each would be a separate HAP source. If the installation tenants include other Defense agencies[6], such as: Defense Logistics Agency (e.g. a DRMO facility), Defense Commissary Agency, Army/Air Force Exchange Service, or Defense Finance and Accounting Office, all of these agencies' activities could also be grouped together and considered one source. (i.e. the potential HAPs emissions from the DRMO, Commissary, Army/Air Force Exchange Services operations and Finance and Accounting activities would be summed to determine if the installation's defense agencies are a major source.) Many installations may find that, by cutting the HAP PTE from the base Army/Air Force Exchange Services gasoline station(s), that the rest of the installation no longer meets the USEPA definition of "major source for HAPs."

[6] Many State regulators have allowed installations to group emissions from their Army Air Force Exchange Service (AAFES) gas stations with the Defense Agencies instead of requiring these emissions be included with the Army air emissions sources.

b. Please read the USEPA guidance at enclosure 6 before negotiating with your State to split your installation up into more than one source. Ms. Lisa Polyak of the U.S. Army Center for Health Promotion and Preventive Medicine can provide your installation expert advice on use of the USEPA policy memorandum and how to negotiate your title V permit to minimize your HAP PTE. Call Ms. Polyak at DSN 584-3500, com (410) 436-3500.

1. **Last Day to Avoid Major HAP Source Status:** Your installation is always and forever affected by any Major source NESHAP that applies to the installation on the day that the NESHAP invokes its first significant requirement. In the past, EPA has considered the NESHAPs compliance deadline to be the date of its first significant requirement.

2. **Estimating HAPs emissions from Open Burning/Open Detonation (OB/OD):** OB/OD can emit large volumes of inorganic HAPs, but current testing data show that organic HAPs emissions appear to be low. So far, based on bang box testing, average emissions range from thousandths to millionths of a pound per pound net explosive weight for representative organic chemicals. Please call Mr. Michael Eck of the U.S. Army Environmental Center, (410) 436-1227 DSN 584-1227, for information on air emissions factors from OB/OD.

Background on Title III.

1. Purpose. The purpose of this appendix is to provide an overall view of the programs that comprise title III of the CAAA, including timelines. The overall goal of title III is to reduce the health threat posed by particularly dangerous air pollutants. Congress identified 189 of these pollutants (now 188). These pollutants are called Hazardous Air Pollutants, or HAPs. To control HAPs, title III requires USEPA to identify industrial activities that are significant sources of HAPs, identify controls for those activities, identify and regulate HAP sources causing the most cancer in urban areas, and promulgate regulations for controlling accidental releases of HAPs.

2. Identification of industries that are significant source of HAPs.

USEPA has identified 174 industrial activities whose HAP emissions pose a significant threat to human health. Twenty-four of these 174 classes of activities are conducted at at least one Army installation. Between November 15, 1992, and November 15, 2000, USEPA is scheduled to promulgate regulations for each of these 174 classes of activities. USEPA periodically publishes the scheduled promulgation date for each of these 174 industrial activities in the Federal Register. They have promulgated about one quarter so far. Each set of regulations is called a "National Emissions Standard for Hazardous Air Pollutants" (NESHAP). (e.g. the regulation governing HAP emissions from Auto and Light Duty Truck Surface Coating will be the "Auto and Light Duty Truck Surface Coating NESHAP") These standards limit HAP emissions from industrial activities by setting air pollution control and monitoring requirements for the HAPs that they emit.

3. How USEPA identifies the control standards in the NESHAP.

a. For each NESHAP that affects only "Major HAP Sources", Title III requires that the NESHAP limit the affected industry's HAP emissions to Maximum Achievable Control Technology (MACT) standard.

i. The MACT standard for newly constructed facilities is equivalent to the best controlled similar facility.

ii. The MACT standard for existing facilities is equivalent to the average control level of the best controlled 12% of these facilities.

iii. MACT must be stringent enough to protect human health. When MACT will not protect human health, USEPA must set the standard stricter than MACT. It must set the control standard to the point that will protect human health.

iv. The MACT standard generally requires a 75% to 95% reduction in HAP emissions as compared with an uncontrolled source.

b. Area Source NESHAPs establish Generally Available Control Technologies or Management (GACT) Standard. Title III requires that each NESHAP affecting "Area Sources" limit this sources HAP emissions to GACT. USEPA can set GACT at any limit that it believes will protect human health.

c. MACT hammer. Section 112(l) of the CAAA, called the "MACT hammer" is intended to ensure that USEPA will somewhat promptly promulgate the MACT standards. The MACT hammer requires that, if more than 18 months has passed since a NESHAP's promulgation date, each major source submit a written request for a MACT determination. The major source must then comply with this MACT. Congress has allowed USEPA to promulgate some MACTs more than 18 months after their scheduled promulgation date by proving to Congress that they were close to identifying MACT for that rule.

4. Identification of HAP sources causing the most cancers in urban areas. The urban air toxics program, CAAA section 112(k), requires USEPA to identify and regulate sources of at least 30 HAPs with the most potential to damage the health of urban residents. It will probably be several more years before USEPA issues this list and promulgates regulations to control these HAPs. USEPA plans to: identify HAPs that most harm the health of urban residents, identify sources of these HAPs, identify any additional regulations required to control these HAP. USEPA will consider controlling HAPs emissions from both stationary sources and mobile sources. Regulations may affect sources in specific areas or nation-wide. Any urban HAP regulations will probably not be promulgated until the early 2000's.

5. Control sources of the seven most toxic HAPs[7]. Title III requires that USEPA regulate all significant, currently unregulated, sources of the seven air toxics. To fulfill this requirement, USEPA is considering adding the following kinds of industrial activities to the current list of 174 industrial activities for which it will prepare NESHAPs. Federal Court has ordered USEPA to update this list by December 1997.

a. Open Burning of Scrap Tires
b. Gasoline Distribution Stage I Aviation, includes evaporative losses associated with the distribution and storage of aviation gas containing lead. This will likely only affect manufacturers and large distributors of leaded aviation fuel. Army installations are unlikely to be affected.
c. Wood Treatment/Wood Preservation, includes small (so-called "area") sources that treat wood with chemicals for preservation purposes.

6. Risk Management Plans: Section 112(r) of the CAAA requires that installations with large amounts of certain materials on hand plan measures to prevent catastrophic releases to the air and properly respond should they occur. Regulations describing these plans have been promulgated at 40 CFR 68.

[7] These pollutants are called the seven air toxics. They are alkylated lead compounds, polycyclic organic matter, hexachlorobenzene, mercury, polychlorinated biphenyls, 2,3,7,8-tetrachlorodibenzofurans (TCDF) and 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD).

MEMORANDUM

SUBJECT: Options for Limiting the Potential to Emit (PTE) of a Stationary Source Under Section 112 and Title V of the Clean Air Act (Act)

FROM: John S. Seitz, Director
Office of Air Quality Planning and Standards (MD-10)

Robert I. Van Heuvelen, Director
Office of Regulatory Enforcement (2241)

TO: Director, Air, Pesticides and Toxics
Management Division, Regions I and IV
Director, Air and Waste Management Division,
Region II
Director, Air, Radiation and Toxics Division,
Region III
Director, Air and Radiation Division,
Region V
Director, Air, Pesticides and Toxics Division,
Region VI
Director, Air and Toxics Division,
Regions VII, VIII, IX, and X

Many stationary source requirements of the Act apply only to "major" sources. Major sources are those sources whose emissions of air pollutants exceed threshold emissions levels specified in the Act. For instance, section 112 requirements such as MACT and section 112(g) and title V operating permit requirements largely apply only to sources with emissions that exceed specified levels and are thus major. To determine whether a source is major, the Act focuses not only on a source's actual emissions, but also on its potential emissions. Thus, a source that has maintained actual emissions at levels below the major source threshold could still be subject to major source requirements if it has the potential to emit major amounts of air pollutants. However, in situations where unrestricted operation of a source would result in a potential to emit above major-source levels, such sources may legally avoid program requirements by taking federally-enforceable permit conditions which limit emissions to levels below the applicable major source threshold. Federally-enforceable permit conditions, if violated, are subject to enforcement by the Environmental Protection Agency (EPA) or by citizens in addition to the State or Local agency.

As the deadlines for complying with MACT standards and title V operating permits approach, industry and State and local air pollution agencies have become increasingly focused on the need to adopt and implement federally-enforceable mechanisms to limit emissions from sources that desire to limit potential emissions to below major source levels. In fact, there are numerous options available which can be tailored by the States to provide such sources with simple and effective ways to qualify as minor sources. Because there appears to be some confusion and questions regarding how potential to emit limits

may be established, EPA has decided to: (1) outline the available approaches to establishing potential to emit limitations,
(2) describe developments related to the implementation of these various approaches, and (3) implement a transition policy that will allow certain sources to be treated as minor for a period of time sufficient for these sources to obtain a federally- enforceable limit.

Federal enforceability is an essential element of establishing limitations on a source's potential to emit. Federal enforceability ensures the conditions placed on emissions to limit a source's potential to emit are enforceable by EPA and citizens as a legal and practical matter, thereby providing the public with credible assurances that otherwise major sources are not avoiding applicable requirements of the Act. In order to ensure compliance with the Act, any approaches developed to allow sources to avoid the major source requirements must be supported by the Federal authorities granted to citizens and EPA. In addition, Federal enforceability provides source owners and operators with assurances that limitations they have obtained from a State or local agency will be recognized by EPA.

The concept of federal enforceability incorporates two separate fundamental elements that must be present in all limitations on a source's potential to emit. First, EPA must have a direct right to enforce restrictions and limitations imposed on a source to limit its exposure to Act programs. This requirement is based both on EPA's general interest in having the power to enforce "all relevant features of SIP's that are necessary for attainment and maintenance of NAAQS and PSD increments" (see 54 FR 27275, citing 48 FR 38748, August 25, 1983) as well as the specific goal of using national enforcement to ensure that the requirements of the Act are uniformly implemented throughout the nation (see 54 FR 27277). Second, limitations must be enforceable as a practical matter.

It is important to recognize that there are shared responsibilities on the part of EPA, State, and local agencies, and on source owners to create and implement approaches to creating acceptable limitations on potential emissions. The lead responsibility for developing limitations on potential emissions rests primarily with source owners and State and local agencies. At the same time, EPA must work together with interested parties, including industry and States to ensure that clear guidance is established and that timely Federal input, including Federal approval actions, is provided where appropriate. The guidance in this memorandum is aimed towards continuing and improving this partnership.

Available Approaches for Creating Federally-enforceable Limitations on the Potential to Emit

There is no single "one size fits all" mechanism that would be appropriate for creating federally-enforceable limitations on potential emissions for all sources in all situations. The spectrum of available mechanisms should, however, ensure that State and local agencies can create federally-enforceable limitations without undue administrative burden to sources or the agency. With this in mind, EPA views the following types of programs, if submitted to and approved by EPA, as available to agencies seeking to establish federally-enforceable potential to emit limits:[8]

1. Federally-enforceable State operating permit programs (FESOPs) (non-title V). For complex sources with numerous and varying emission points, case-by-case permitting is generally needed for the establishment of limitations on the source's potential to emit. Such case-by-case permitting is often accomplished through a non-title V federally-enforceable State operating permit program. This type of permit program, and its basic elements, are described in guidance published in the Federal Register on June 28, 1989 (54 FR 27274). In short, the program must: (a) be approved into the SIP, (b) impose legal obligations to conform to the permit limitations, (c) provide for limits that are enforceable as a practical

[8]This is not an exhaustive list of considerations affecting potential to emit. Other federally-enforceable limits can be used, for example, source-specific SIP revisions. For brevity, we have included those which have the widest applicability.

matter, (d) be issued in a process that provides for review and an opportunity for comment by the public and by EPA, and (e) ensure that there is no relaxation of otherwise applicable Federal requirements. The EPA believes that these type of programs can be used for both criteria pollutants and hazardous air pollutants, as described in the memorandum, "Approaches to Creating Federally-Enforceable Emissions Limits," November 3, 1993. This memorandum (referred to below as the November 1993 memorandum) is included for your information as Attachment 1. There are a number of important clarifications with respect to hazardous air pollutants subsequent to the November 1993 memorandum which are discussed below (see section entitled "Limitations on Hazardous Air Pollutants").

2. Limitations established by rules. For less complex plant sites, and for source categories involving relatively few operations that are relatively similar in nature, case-by-case permitting may not be the most administratively efficient approach to establishing federally-enforceable restrictions. One approach that has been used is to establish a general rule which creates federally-enforceable restrictions at one time for many sources (these rules have been referred to as "exclusionary" rules and by some permitting agencies as "prohibitory" rules). A specific suggested approach for volatile organic compounds (VOC) limits by rule was described in EPA's memorandum dated October 15, 1993 entitled "Guidance for State Rules for Optional Federally-Enforceable Emissions Limits Based Upon Volatile Organic Compound (VOC) Use." An example of such an exclusionary rule is a model rule developed for use in California. (The California model rule is attached, along with a discussion of its applicability to other situations--see Attachment 2). Exclusionary rules are included in a State's SIP and generally become effective upon approval by EPA.

3. General permits. A concept similar to the exclusionary rule is the establishment of a general permit for a given source type. A general permit is a single permit that establishes terms and conditions that must be complied with by all sources subject to that permit. The establishment of a general permit provides for conditions limiting potential to emit in a one-time permitting process, and thus avoids the need to issue separate permits for each source within the covered source type or category. Although this concept is generally thought of as an element of a title V permit program, there is no reason that a State or local agency could not submit a general permit program as a SIP submittal aimed at creating potential to emit limits for groups of sources. Additionally, general permits can be issued under the auspices of a SIP-approved FESOP. The advantage of a general permit, when compared to an exclusionary rule, is that upon approval by EPA of the State's permit program, a
general permit could be written for one or more additional source types without triggering the need for the formal SIP revision process.

4. Construction permits. Another type of case-by-case permit is a construction permit. These permits generally cover new and modified sources, and States have developed such permit programs as an element of their SIP's. As described in the November 1993 memorandum, these State major and minor new source review (NSR) construction permits can provide for federally-enforceable limitations on a source's potential to emit. Further discussion of the use of minor source NSR programs is contained in EPA's letter to Jason Grumet, NESCAUM, dated November 2, 1994, which is contained in Attachment 3. As noted in this letter, the usefulness of minor NSR programs for the creation of potential to emit limitations can vary from State to State, and is somewhat dependent on the scope of a State's program.

5. Title V permits. Operating permits issued under the Federal title V operating permits program can, in some cases, provide a convenient and readily available mechanism to create federally-enforceable limits. Although the applicability date for part 70 permit programs is generally the driving force for most of the current concerns with respect to potential to emit, there are other programs, such as the section 112 air toxics program, for which title V permits may themselves be a useful mechanism for creating potential to emit limits. For example, many sources will be considered to be major by virtue of combustion emissions of nitrogen oxides or sulfur dioxide, and will be required to obtain part 70 permits. Such permits could be used to establish federally-enforceable limitations that could ensure that the source is not considered a major source of hazardous air pollutants.

Practicable Enforceability

If limitations--whether imposed by SIP rules or through individual or general permits--are incomplete or vague or unsupported by appropriate compliance records, enforcement by the States, citizens and EPA would not be effective. Consequently, in all cases, limitations and restrictions must be of sufficient quality and quantity to ensure accountability (see 54 FR 27283).

The EPA has issued several guidance documents explaining the requirements of practicable enforceability (e.g., "Guidance on Limiting Potential to Emit in New Source Permitting," June 13, 1989; memorandum from John Rasnic entitled "Policy Determination on Limiting Potential to Emit for Koch Refining Company's Clean Fuels Project," March 13, 1992). In general, practicable enforceability for a source-specific permit means that the permit's provisions must specify: (1) A technically-accurate limitation and the portions of the source subject to the limitation; (2) the time period for the limitation (hourly, daily, monthly, and annual limits such as rolling annual limits); and (3) the method to determine compliance including appropriate monitoring, recordkeeping, and reporting. For rules and general permits that apply to categories of sources, practicable enforceability additionally requires that the provisions:
(1) identify the types or categories of sources that are covered by the rule; (2) where coverage is optional, provide for notice to the permitting authority of the source's election to be covered by the rule; and (3) specify the enforcement consequences relevant to the rule. More specific guidance on these enforceability principles as they apply to rules and general permits is provided in Attachment 4.

Limitations on Hazardous Air Pollutants (HAP)

There are a number of important points to recognize with respect to the ability of existing State and local programs to create limitations for the 189 HAP listed in (or pursuant to) section 112(b) of the Act, consistent with the definitions of "potential to emit" and "federally-enforceable" in 40 CFR 63.2 (promulgated March 16, 1994, 59 FR 12408 in the part 63 General Provisions). The EPA believes that most State and local programs should have broad capabilities to handle the great majority of situations for which a potential to emit limitation on HAP is needed.

First, it is useful to note that the definition of potential to emit for the Federal air toxics program (see the subpart A "general provisions," section 63.2) considers, for purposes of controlling HAP emissions, federally-enforceable limitations on criteria pollutant emissions if "the effect such limitations would have on "[hazardous air pollutant] . . . emissions" is federally-enforceable (emphasis added). There are many examples of such criteria pollutant emission limits that are present in federally-enforceable State and local permits and rules. Examples would include a limitation constraining an operation to one (time limit specified) shift per day or limitations that effectively limit operations to 2000 hours per year. Other examples would include limitations on the amount of material used, for example a permit limitation constraining an operation to using no more than 100 gallons of paint per month. Additionally, federally-enforceable permit terms that, for example, required an incinerator to be operated and maintained at no less than 1600 degrees would have an obvious "effect" on the HAP present in the inlet stream.

Another federally-enforceable way criteria pollutant limitations affect HAP can be described as a "nested" HAP limit within a permit containing conditions limiting criteria pollutants. For example, the particular VOC's within a given operation may include toluene and xylene, which are also HAP. If the VOC-limiting permit has established limitations on the amount of toluene and xylene used as the means to reduce VOC, those limitations would have an obvious "effect" on HAP as well.

In cases as described above, the "effect" of criteria pollutant limits will be straightforward. In other cases, information may be needed on the nature of the HAP stream present. For example, a limit on VOC that ensured total VOC's of 20 tons per year may not ensure that each HAP present is less than 10 tons per year without further investigation. While the EPA intends to develop further technical guidance on situations for which additional permit terms and conditions may be needed to ensure that the "effect" is

enforceable as a practical matter, the EPA intends to rely on State and local agencies to employ care in drafting enforceable requirements which recognize obvious environmental and health concerns.

There are, of course, a few important pollutants which are HAP but are not criteria pollutants. Example of these would include methylene chloride and other pollutants which are considered nonreactive and therefore exempt from coverage as VOC's. Especially in cases where such pollutants are the only pollutants present, criteria pollutant emission limitations may not be sufficient to limit HAP. For such cases, the State or local agency will need to seek program approval under section 112(l) of the Act.

Section 112(l) provides a clear mechanism for approval of State and local air toxics programs for purposes of establishing HAP-specific PTE limits. The EPA intends, where appropriate, that in approving permitting programs into the SIP, to add appropriate language citing approval pursuant to section 112(l) as well. An example illustrating section 112(l) approval is the approval of the State of Ohio's program for limiting potential to emit (see 59 FR 53587, October 25, 1994). In this notice, EPA granted approval under section 112(l) for hazardous air pollutants aspects of a State program for limiting potential to emit. Such language can be added to any federally-enforceable State operating permit program, exclusionary rule, or NSR program update SIP approval notice so long as the State or local program has the authority to regulate HAP and meets other section 112(l) approval criteria. Transition issues related to such section 112(l) approvals are discussed below.

Determination of Maximum Capacity

While EPA and States have been calculating potential to emit for a number of years, EPA believes that it is important at this time to provide some clarification on what is meant in the definition of potential to emit by the "maximum capacity of a stationary source to emit under its physical and operational design." Clearly, there are sources for which inherent physical limitations for the operation restrict the potential emissions of individual emission units. Where such inherent limitations can be documented by a source and confirmed by the permitting agency, EPA believes that States have the authority to make such judgements and factor them into estimates of a stationary source's potential to emit.

The EPA believes that the most straightforward examples of such inherent limitations is for single-emission unit type operations. For example, EPA does not believe that the "maximum capacity" language requires that owner of a paint spray booth at a small auto body shop must assume that (even if the source could be in operation year-round) spray equipment is operated 8760 hours per year in cases where there are inherent physical limitations on the number of cars that can be painted within any given period of time. For larger sources involving multiple emissions units and complex operations, EPA believes it can be more problematic to identify the inherent limitations that may exist.

The EPA intends, within its resource constraints, to issue technical assistance in this area by providing information on the type of operational limits that may be considered acceptable to limit the potential to emit for certain individual small source categories.

Transition Guidance for Section 112 and Title V Applicability

Most, if not all, States have recognized the need to develop options for limiting the potential emissions of sources and are moving forward with one or more of the strategies described in the preceding sections in conjunction with the submission and implementation of their part 70 permit programs. However, EPA is aware of the concern of States and sources that title V or section 112 implementation will move ahead of the development and implementation of these options, leaving sources with actual emissions clearly below the major source thresholds potentially subject to part 70 and other major source requirements. Gaps could theoretically occur during the time period it takes for a State program to be designed and administratively adopted by the State, approved into the SIP by EPA, and implemented as needed to cover individual sources.

The EPA is committed to aiding all States in developing and implementing adequate, streamlined, and cost-effective vehicles for creating federally-enforceable limits on a source's potential emissions by the time that section 112 or title V requirements become effective. To help bridge any gaps, EPA will expedite its reviews of State exclusionary rules and operating permit rules by, among other things, coordinating the approval of these rules with the approval of the State's part 70 program and by using expeditious approval approaches such as "direct final" Federal Register notices to ensure that approval of these programs does not lag behind approval of the part 70 program.

In addition, in such approval notices EPA will affirm any limits established under the State's program since its adoption by the State but prior to Federal approval if such limits were established in accordance with the procedures and requirements of the approved program. An example of language affirming such limits was recently used in approving an Illinois SIP revision (see 57 FR 59931, included as Attachment 5).

The EPA remains concerned that even with expedited approvals and other strategies, sources may face gaps in the ability to acquire federally-enforceable potential to emit limits due to delays in State adoption or EPA approval of programs or in their implementation. In order to ensure that such gaps do not create adverse consequences for States or for sources, EPA is announcing a transition policy for a period up to two years from the date of this memorandum. The EPA intends to make this transition policy available at the discretion of the State or local agency to the extent there are sources which the State believes can benefit from such a transition policy. The transition period will extend from now until the gaps in program implementation are filled, but no later than January 1997. Today's guidance, which EPA intends to codify through a notice and comment rulemaking, provides States discretion to use the following options for satisfying potential to emit requirements during this transition period.

1. Sources maintaining emissions below 50 percent of all applicable major source requirements. For sources that typically and consistently maintain emissions significantly below major source levels, relatively few benefits would be gained by making such sources subject to major source requirements under the Act. For this reason, many States are developing exclusionary rules and general permits to create simple, streamlined means to ensure that these sources are not considered major sources. To ease the burden on States' implementation of title V, and to ensure that delays in EPA's approval of these types of programs will not cause an administrative burden on the States, EPA is providing a 2-year transition period for sources that maintain their actual emissions, for every consecutive 12-month period (beginning with the 12 months immediately preceding the date of this memorandum), at levels that do not exceed 50 percent of any and all of the major stationary source thresholds applicable to that source. A source that exceeds the 50 percent threshold, without complying with major source requirements of the Act (or without otherwise limiting its potential to emit), could be subject to enforcement. For this 2-year period, such sources would not be treated as major sources and would not be required to obtain a permit that limits their potential to emit. To qualify under this transition policy, sources must maintain adequate records on site to demonstrate that emissions are maintained below these thresholds for the entire as major sources and would not be required to obtain a permit that limits their potential to emit that would be considered to be adequate during this transition period. Consistent with the California approach, EPA believes it is appropriate for the amount of recordkeeping to vary according to the level of emissions (see paragraphs 1.2 and 4.2 of the attached rule).

2. Larger sources with State limits. For the 2-year transition period, restrictions contained in State permits issued to sources above the 50 percent threshold would be treated by EPA as acceptable limits on potential to emit, provided: (a) the permit is enforceable as a practical matter; (b) the source owner submits a written certification to EPA that it will comply with the limits as a restriction on its potential to emit; and (c) the source owner, in the certification, accepts Federal and citizen enforcement of the limits (this is appropriate given that the limits are being taken to avoid otherwise applicable Federal requirements). Such limits will be valid for purposes of limiting potential to emit from the date the certification is received by EPA until the end of the transition period. States interested in making use of

this portion of the transition policy should work with their Regional Office to develop an appropriate certification process.

3. Limits for noncriteria HAP. For noncriteria HAP for which no existing federally-approved program is available for the creation of federally-enforceable limits, the 2-year transition period provides for sufficient time to gain approval pursuant to section 112(l). For the 2-year transition period, State restrictions on such noncriteria pollutants issued to sources with emissions above the 50 percent threshold would be treated by EPA as limiting a source's potential to emit, provided that:
(a) the restrictions are enforceable as a practical matter; (b) the source owner submits a written certification to EPA that it will comply with the limits as a restriction on its potential to emit; and (c) the source owner, in the certification, accepts Federal and citizen enforcement of the limits. Such limits will be valid for purposes of limiting potential to emit from the date the certification is received by EPA until the end of the transition period.

The Regional Offices should send this memorandum, including the attachments, to States within their jurisdiction. Questions concerning specific issues and cases should be directed to the appropriate Regional Office. Regional Office staff may contact Timothy Smith of the Integrated Implementation Group at
919-541-4718, or Clara Poffenberger with the Air Enforcement Division at 202-564-8709.

Attachments

cc: Air Branch Chief, Region I-X
Regional Counsels

July 10, 1998

MEMORANDUM

SUBJECT: Second Extension of January 25, 1995 Potential to Emit Transition Policy and Clarification of Interim Policy

FROM: John S. Seitz, Director /s/
Office of Air Quality Planning and Standards (MD-10)

Eric V. Schaeffer, Director
Office of Regulatory Enforcement (2241A)

TO: See Addressees

This memorandum further extends the Environmental Protection Agency's (EPA) January 25, 1995 transition policy for potential to emit (PTE) limits relative to maximum achievable control technology (MACT) standards issued under section 112 of the Clean Air Act and federal operating permits issued under Title V programs. It also clarifies how the EPA's interim policy on PTE, first discussed in a January 22, 1996 memorandum, works with the transition policy.

Background

Many Clean Air Act requirements apply only to "major" sources, that is, those sources whose actual or potential emissions of air pollution exceed threshold emissions levels specified in the Act. A source's total potential to emit is determined by a two step process. First, the source's potential emissions at maximum physical capacity are established. This figure is then reduced by any recognized, practically enforceable limits on the source's emissions, such as limits on rates of production, hours of operation, and type and amount of fuel burned or materials processed. The three primary programs where PTE is a significant factor are (1) the section 112 MACT program to control emissions of hazardous air pollutants (HAPs); (2) the Title V operating permits program; and (3) the New Source Review (NSR) programs in Part C of Title I (the prevention of significant deterioration (PSD) program) and Part D of Title I (the nonattainment NSR program). These programs each contain a definition of PTE. Due to several court decisions addressing the requirement in EPA's regulatory definition of PTE under these programs that any enforceable limits on potential emissions be federally enforceable, these regulations are currently under review, and the EPA is engaged in a rulemaking process to consider amendments to the current requirements. The EPA has reviewed information provided through a stakeholder process and is preparing a proposed rule presenting several options related to practical and federal enforceability. Further information on options being considered is contained in January 1996 and November 1997 options papers (available on the Internet at http://www.epa.gov/ttn/oarpg/).

The Current Transition Policy

In a January 25, 1995 policy memorandum entitled "Options for Limiting the Potential to Emit (PTE) of a Stationary Source Under Section 112 and Title V of the Clean Air Act (Act)," issued before the court decisions regarding the definition of PTE and federal enforceability, the EPA announced a transition policy for Section 112 and Title V (available on the Internet at http://www.epa.gov/ttn/oarpg/t5pgm.html).

This transition policy alleviated concerns that some sources may face gaps in the ability to acquire federally enforceable PTE limits because of delays in State adoption or EPA approval of programs or in their implementation. In order to ensure that such gaps would not create adverse consequences for States or for sources, the EPA provided that during a 2-year period extending from January 1995 to January 1997, for sources lacking federally enforceable limitations, State and local air regulators had the option of treating the following types of sources as non-major in their Title V programs and under section 112:

(1) sources that maintain adequate records to demonstrate that their actual emissions are less than 50 percent of the applicable major source threshold, and have continued to operate at less than 50 percent of the threshold since January 1994, and

(2) sources with actual emissions between 50-100 percent of the threshold, but which hold State-enforceable limits that are enforceable as a practical matter.

On August 27, 1996, the EPA announced an extension of the transition policy until July 31, 1998. See Memorandum entitled "Extension of January 25, 1995 Potential to Emit Transition Policy" (Aug. 27, 1996) (Internet site http://www.epa.gov/ttn/oarpg/t5pgm.html). This extension was originally based, in part, on the schedule for completing the rulemaking on the definition of PTE.

Second Extension of Transition Policy

The EPA does not expect that the PTE rulemaking which will address the PTE requirements in, among other rules, the MACT standard General Provisions (40 C.F.R. part 63, subpart A) and the Title V operating permits program, will be completed before July 1998. These rule amendments will affect federal enforceability requirements for PTE limits under these programs. Thus, there will continue to be uncertainty with respect to federally enforceable limits, and a basis for the January 25, 1995 transition policy will continue to be valid after July 31, 1998. The EPA is, therefore, extending the transition period for the MACT and Title V programs until December 31, 1999, or until the effective date of the final rule in the PTE rulemaking, whichever is sooner.

Interim Policy During Period Between D.C. Circuit Opinions and Final PTE Rule

A January 22, 1996 policy memorandum entitled "Release of Interim Policy on Federal Enforceability of Limitations on Potential to Emit" sets forth the EPA's interim policy on federal enforceability during the period prior to the effective date of a final PTE rule (available on the Internet at http://www.epa.gov//ttn/oarpg/t5pgm.html). Because there have been several inquiries into the application of the interim policy, the EPA encourages Regions, States and regulated sources to review that policy memorandum, as it still represents the EPA's position. A brief description is provided below.

Section 112: In National Mining Association v. EPA, 59 F.3d 1362 (D.C. Cir. 1995), the D.C. Circuit questioned whether the federal enforceability requirement in the General Provisions to 40 C.F.R. part 63 was "necessary." The court remanded, but did not vacate, the definition of PTE in the General Provisions. Nonetheless, as noted above, since January 25, 1995, in a policy decision prior to the National Mining opinion, the EPA has followed the transition policy regarding what limits are necessary to render a source of hazardous air pollutants a "synthetic minor" source for purposes of section 112. As discussed above, today's memorandum extends the transition policy until December 31, 1999.

Title V: In Clean Air Implementation Project v. EPA, No. 96-1224 (D.C. Cir. June 28, 1996) (CAIP), the court vacated and remanded the requirement for federal enforceability for PTE limits under 40 C.F.R. part 70. The EPA has stated that the term "federally enforceable" in section 70.2 should now be read to mean "federally enforceable or legally and practicably enforceable by a State or local air pollution control agency" pending any additional rulemaking by the EPA.

As stated in the August 1996 memorandum, the EPA interprets the court order vacating the part 70 definition as not affecting any requirement for federal enforceability in existing State rules and programs. Pending the outcome of the current rulemaking effort, the EPA believes that States are not likely to pursue submittals for program revisions. Thus, despite the State program requirements for federal enforceability, there may be States wishing to continue to observe the transition policy -- the transition policy specifically allows States to follow it in determining Title V applicability. Therefore, as stated above, the EPA is extending the transition policy as it relates to Title V permitting until December 31, 1999.

New Source Review: In Chemical Manufacturers Association v. EPA, No. 89-1514 (D.C. Cir. Sept. 15, 1995) the court remanded and vacated the federal enforceability requirement in the federal NSR/PSD rules. The EPA reiterates that neither the January 25, 1995 transition policy, the opinion in National Mining nor the court order in CAIP impacts the NSR or PSD programs. A full discussion of the EPA's policy with respect to PTE issues related to the NSR and PSD programs is presented in the January 22, 1996 policy memorandum.

In brief, that memorandum states that the court's order in Chemical Manufacturers Association did not impact the individual state rules implementing these programs that have been incorporated into EPA-approved State Implementation Plans (SIPs). Thus, the order's practical impacts on NSR/PSD programs are not substantial for new construction -- federal enforceability is still required to create "synthetic minor" new and modified sources in most circumstances pending completion of the PTE rulemaking. The precise impact of the vacatur on NSR/PSD applicability can be definitively determined only by reviewing the applicable SIP provisions.

Distribution/Further Information

We are asking Regional Offices to send this memorandum to States within their jurisdiction. Questions concerning specific issues and cases should be directed to the appropriate Regional Office. The Regional Office staff may contact John Walke of the Office of General Counsel at 202-260-9856; or Carol Holmes of the Office of Regulatory Enforcement at 202-564-8709. The document is also available on the Internet, at http:\\www.epa.gov\ttn\oarpg, under "OAR Policy and Guidance Information."

Addressees:
Director, Office of Ecosystem Protection, Region I
Director, Division of Environmental Planning and Protection, Region II
Director, Division of Air Quality, Region III
Director, Air, Pesticides, and Toxics Management Division, Region IV
Director, Air and Radiation Division, Region V
Director, Multimedia Planning and Permitting Division, Region VI
Director, Air, RCRA, and TSCA Division, Region VII
Assistant Regional Administrator, Office of Pollution Prevention, State, and Tribal Assistance, Region VIII
Director, Air and Toxics Division, Region IX
Director, Office of Air, Region X
Regional Counsels, Regions I-X
Director, Office of Environmental Stewardship, Region I
Director, Division of Enforcement and Compliance Assurance, Region II
Director, Enforcement Coordination Office, Region III
Director, Compliance Assurance and Enforcement Division, Region VI
Director, Enforcement Coordination Office, Region VII

Assistant Regional Administrator, Office of Enforcement, Compliance
and Environmental Justice, Region VIII
Enforcement Coordinator, Office of Regional Enforcement
Coordination, Region IX

cc: C. Holmes (2242A)
J. Ketcham-Colwill (6103)
J. Walke (2344)
L. Hutchinson (MD12)

Summary of the Nonroad Engine Rule and EMA v EPA

Background: Before it was amended in 1990, the Clean Air Act did not address "nonroad engines." Therefore, states could regulate them under their air pollution control programs and classify them as stationary sources under certain circumstances Engines that are otherwise portable, but were used in a stationary manner by being operated continuously at a single location for a particular length of time (typically 12 months), were considered stationary by some states and included in their regulations applicable to stationary sources. This regulatory scheme prevailed in several states with nonattainment areas, particularly California

In 1990, the Clean Air Act Amendments added provisions for the regulation of nonroad engine emissions. Amended Section 213 required EPA to study the contribution of nonroad engine emissions to ozone or carbon monoxide nonattainment and to regulate those engines if certain findings were made. In addition, Section 216(10) defines nonroad engine as: "...an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 or section 7521." Section 209(e) preempts states from adopting emissions standards for nonroad engines, except that California may do so with EPA approval, after which other states may adopt rules identical to California's.

Based on the results its study EPA promulgated the first nonroad engine regulation in 1994. The Nonroad Engine Rule (59 Fed. Reg. 31306; June 17, 1994) established national emissions standards for compression-ignition (diesel or alternative fuel) engines at or above 37 kW (50 hp) that meet the definition of a nonroad engine. Much of our aerospace ground equipment (AGE) meets the regulatory definition of nonroad engine and almost all of it meets the statutory definition in CAA Section 216. The rule provided that such engines cannot be regulated by states as stationary sources if they are newer than the effective date of the rule, but that "existing" (i.e., pre-nonroad engine rule) engines may be treated as stationary. (See also, Preemption of State Regulation for Nonroad Engine and Vehicle Standards, 59 Fed. Reg. 36969; July 20, 1994). This distinction between "new" and "existing" engines for purposes of CAA Section 209 preemption allowed each state to choose whether to regulate existing engines as stationary or mobile.

The divergent treatment of new and existing engines was based on EPA's decision in the Nonroad Engine rule that §209's preemption applies only to new nonroad engines. Regarding existing engines, this perpetuated the problem that stationary source regulation of AGE by some states created for DoD. It subjects a single engine to different requirements when it is deployed from one state to another. For example, the movement of AGE that is considered mobile in one state to another state that considers it stationary would result in the AGE being suddenly subject to NSR, PSD, LAER, BACT (depending on whether the AGE's destination is in attainment or not), or other stationary source regulations. Such application of stationary source programs to a truly mobile piece of equipment severely restricts mobility and impedes the performance of our military mission.

On 12 July 96, the U.S. Court of Appeals for the District of Columbia Circuit issued a decision in an industry challenge to the Nonroad Engine Rule. (Engine Manufacturers Association v. U.S. Environmental Protection Agency, 1996 WL 387416 (D.C.Cir.)). The court decided that EPA incorrectly interpreted §209 of the Clean Air Act and held that all nonroad engines, not new ones only, are preempted from state regulation as stationary sources. The court did not defer to EPA's judgment on this point because, it said, the plain language of Section 209(e)(2) makes no distinction between new and existing engines and is therefore not subject to differing interpretations Thus, nonroad engines, including AGE, may not be included in stationary source programs.

August 2, 1996

MEMORANDUM

SUBJECT: Major Source Determinations for Military Installations under the Air Toxics, New Source Review, and Title V Operating Permit Programs of the Clean Air Act (Act)

FROM: John S. Seitz, Director /s/
Office of Air Quality Planning and Standards (MD-10)

TO: See Addressees

Purpose of Guidance

The purpose of this memorandum is to provide guidance on implementing the section 112 air toxics, title I (Part D) nonattainment new source review (nonattainment NSR), title I (Part C) prevention of significant deterioration (PSD), and title V operating permit programs with regard to "major source" determinations at Federal military installations. (The nonattainment NSR and PSD programs together are hereafter referred to as the new source review (NSR) program.) The attachment to this memorandum, entitled "Guidance for Major Source Determinations at Military Installations under the Air Toxics, New Source Review, and Title V Operating Permit Programs of the Clean Air Act (Act)," outlines today's guidance in greater detail.

For the purposes of this guidance, the term "military installation" refers to a stationary source, or group of stationary sources, located on one or more contiguous or adjacent properties that are owned, operated, supervised, or controlled by one or more Department of Defense (DOD) components which include the military services, the defense agencies, and the National Guard. (Defense agencies are components of the DOD that are
established by the Secretary of Defense to perform a supply or service activity common to more than one military department. For example, the Defense Finance and Accounting Service handles the payroll for all the military services.) This definition of the term military installation has been developed solely for the purpose of providing a starting point in the analytical process for making major source determinations that is described in this guidance. It is not intended to be equivalent to the term "major source."

Background

In recent months, the requirement for sources to prepare and submit title V operating permit applications has led to greatly increased interest in understanding how to make "major source" determinations. At issue are questions about which pollutant-emitting activities at stationary sources must be aggregated for the purpose of determining the applicability of emission control and permitting requirements under the Act.

In particular, given the wide variety of functions performed at military bases and the array of "control" arrangements associated with them, the DOD has requested that the Environmental Protection Agency (EPA) issue guidance addressing how determinations of major sources may be made at military

installations. Compared to most industrial sources, military installations include a wider variety of functions and activities including residential housing, schools, churches, recreational parks, shopping centers, industrial operations, training ranges, airports, gas stations, utility plants, police and fire departments, and hospitals. In addition, military installations include a variety of tenant activities, including other DOD service, non-DOD Federal agency, contractor, and leased commercial activities.

Section 118(a) of the Act states that each department, agency, and instrumentality of the Federal government is subject to and must comply with all Federal, State, and local requirements in the same manner and to the same extent as any nongovernmental entity. The EPA believes that the effect of today's guidance is to assure that military installations are treated consistently with how the Agency's regulations and policies are applied at nonmilitary stationary sources.

Summary of Guidance

Common Control Determinations

When making major source determinations at a military installation, the Agency believes it is appropriate to consider pollutant-emitting activities that are under the control of different military services *not* to be under common control. In other words, all pollutant-emitting activities at an installation under the control of the Army could be considered under separate control from those activities "owned or operated" by the Navy, the Air Force, or the Marine Corps. In addition, activities under the control of the National Guard may be considered under separate control from activities under the control of military services, as can activities under the control of the defense agencies; however, the defense agencies are considered under common control with each other.

While separate military controlling entities may be treated as under separate control, determinations for military installations should be made on a case-specific basis after examining the operations and interactions at those sites. Consequently, there may be situations in which the air pollution control agency or the permitting authority determines that it is appropriate to consider a military installation a single source, notwithstanding the presence of multiple controlling entities at that military installation. Nothing in this guidance precludes such a finding by an agency or permitting authority.

In general, leased activities at military installations may be considered under separate control from activities under the control of the military controlling entities at that installation. These leased activities would be considered "tenants" on military bases. In contrast, contract-for-service (or contractor-operated) activities at military installations usually would be considered under the control of the military controlling entity that controls the contract. Thus, leased activities may be considered under common control when they also have a contract-for-service relationship to provide goods or services to a military controlling entity at that military installation. Given the variety and complexity of leased and contract-for-service activities at military bases, the Agency expects that case-by-case determinations will often be necessary for such situations.

Industrial Grouping and Support Facility Determinations

Historically, all activities at a military installation have been grouped under the Standard Industrial Classification (SIC) Manual Major Group 97, "National Security and International Affairs" (or, more specifically, within Major Group 97, Industry Number 9711, "National Security"). Upon evaluating the application of the SIC-code approach to classifying military installations, the EPA has determined that Major Group 97 is inappropriate for major source determinations at some military installations. In these instances, the 97 Major Group inappropriately aggregates activities at a military installation with the result that portions of the installation could be subject to requirements under the Act that would not otherwise apply if a comparable source determination were made as if for a nonmilitary facility.

The EPA believes it is appropriate to think of military installations as combinations of functionally distinct groupings of pollutant-emitting activities that may be identified and distinguished the same way that industrial and commercial sources are distinguished, that is, on the basis of a "common sense notion of a plant." Thus, the following approach may be used to determine how military facilities should be aggregated in making major source determinations: the "industrial groupings" at a military installation may be assigned appropriate 2-digit SIC codes (as if they were nonmilitary facilities) and classified into "primary" and "support" activities. As is now done for nonmilitary sources, support activities at military bases would be aggregated with their associated primary activity regardless of dissimilar 2-digit SIC codes.

The EPA also believes that certain personnel-related activities at military installations may appropriately be considered *not* to be support facilities to the primary military activities of a base and, therefore, they can be considered separate sources. Examples of these types of activities include residential housing, schools, day care centers, churches, recreational parks, theaters, shopping centers, grocery stores, gas stations, and dry cleaners. These activities may be treated as separate sources for all purposes for which an industrial grouping distinction is allowed, but they should be separately evaluated for common control, SIC code, and support facility linkages to determine if a major source is present.

Title V Permitting

After determining that stationary sources at a military installation are subject to title V permitting, permitting authorities have discretion to issue more than one title V permit to each major source at that installation, so long as the collection of permits assures that all applicable requirements would be met that otherwise would be required under a single permit for each major source. In other words, all stationary sources that are subject to title V permitting within a major source must be covered by one of these permits, and a major source may not be divided in a way that changes how it would be subject to or comply with applicable requirements compared with what would otherwise occur if a single title V permit were issued to that major source.

Permitting authorities may accept multiple permit applications from each major source, provided that each permit application is certified by a responsible official who is selected in accordance with the requirements of 40 CFR 70.2 or 71.2. The EPA recommends that military controlling entities that wish to obtain multiple title V permits for major sources under their control meet with their permitting authorities well in advance of permit application submission deadlines to discuss how their major sources may be divided to receive separate title V permits. Where military installations have already filed title V permit applications and these submittals are being processed for permit issuance, these applications should be reevaluated in light of the approaches described in this guidance, if appropriate.

Effect of Guidance

This guidance explains the EPA's interpretations of what is minimally required under its regulations; it is not intended to supersede or replace more stringent approaches taken by any particular agency or permitting authority. State and local agencies may choose to implement the approaches described here, or they may exercise their discretion to implement more stringent approaches provided there is a rational basis for the treatment of military installations compared with other types of facilities. The EPA recommends that military installations consult with their permitting authorities to determine the application of this guidance to their installations.

For major stationary source determinations under the NSR program, this guidance applies prospectively only and it does not affect any preexisting major source determination made by a permitting authority (e.g., one that resulted in the issuance of a major NSR permit or one that resulted in a determination that major NSR was not applicable). Such determinations generally would continue to be

valid, provided they were made in accordance with relevant State and Federal requirements that applied at the time they were made.

The interpretations and policies set forth in this document are intended solely as guidance, do not represent final Agency action, and cannot be relied upon to create rights enforceable by any party. The EPA will continue to evaluate the need for guidance on major source determinations for military installations and may issue additional guidance in the future.

Distribution/Further Information

The Regional Offices should send this memorandum, including the attachment, to State and local air pollution control agencies within their jurisdictions. Regional Offices should distribute these materials promptly because title V permit application deadlines are approaching for military installations in numerous locations. Questions concerning specific issues and cases should be directed to the appropriate Regional Office. In addition, copies of cited materials that are not otherwise readily available may be obtained from the air permitting contacts at the Regional Offices. Regional Office staff may contact Michele Dubow of the Integrated Implementation Group at (919) 541-3803. This document is also available on the technology transfer network (TTN) bulletin board, under "Clean Air Act" - "Title V" - "Policy Guidance Memos." (Readers unfamiliar with this bulletin board may obtain access by calling the TTN help line at (919) 541-5384.)

Attachment

Addressees:
Director, Office of Ecosystem Protection, Region I
Director, Division of Environmental Planning and Protection,
Region II
Director, Air, Radiation and Toxics Division, Region III
Director, Air, Pesticides and Toxics Management Division, Region IV
Director, Air and Radiation Division, Region V
Director, Multimedia Planning and Permitting Division, Region VI
Director, Air, RCRA, and TSCA Division, Region VII
Assistant Regional Administrator, Office of Pollution Prevention,
State and Tribal Assistance, Region VIII
Director, Air and Toxics Division, Region IX
Director, Office of Air, Region X

cc: Air Branch Chiefs, Regions I-X
Regional Air Toxics, NSR, and
Title V Contacts, Regions I-X
Michele Dubow (MD-12)
Bruce Jordan (MD-13)
Bob Kellam (MD-12)

ATTACHMENT

Guidance for Major Source Determinations at Military Installations under the Air Toxics, New Source Review, and Title V Operating Permit Programs of the Clean Air Act (Act)

I. Introduction

The relevant programs to which this guidance applies are the section 112 air toxics, title I (Part D) nonattainment new source review (nonattainment NSR), title I (Part C) prevention of significant deterioration (PSD), and title V operating permit programs. (The nonattainment NSR and PSD programs are hereafter referred to collectively as the new source review (NSR) program.) Regulations implementing these programs are found, respectively, in 40 CFR parts 63, 51 and 52, and 70 and 71.[9] This guidance explains the Environmental Protection Agency's (EPA) interpretation of what is minimally required under these regulations; it is not intended to supersede or replace more stringent approaches taken by any particular air pollution control agency or permitting authority provided there is a rational basis for the treatment of military installations compared with other types of facilities. The EPA recommends that military installations consult with their agencies or permitting authorities to determine the application of this guidance to their installations.

For the purposes of this document, the term "military installation" refers to a stationary source,[10] or group of stationary sources, that are located on one or more contiguous or adjacent properties that are owned, operated, supervised, or controlled by one or more Department of Defense (DOD) components which include the military services, the defense agencies, and the National Guard.[11]

The interpretations and policies set forth in this document are intended solely as guidance, do not represent final Agency action, and cannot be relied upon to create rights enforceable by any party. Furthermore, this guidance applies prospectively only for major stationary source determinations under the NSR program and it does not affect any preexisting major source determination made by a permitting authority (e.g., one that resulted in the issuance of a major NSR permit or one that resulted in a determination that major NSR was not applicable). Such determinations generally would continue to be valid, provided they were made in accordance with the relevant State and Federal requirements that applied at the time they were made.

II. Background

---

[9] The use of this guidance in determining what constitutes a major source does not affect the scope of what constitutes a "Federal action" for the purposes of the General Conformity Rule (40 CFR 93.150-160).

[10] The term "stationary source" is used here with its meaning under 40 CFR part 70: "any building, structure, facility, or installation that emits or may emit any regulated air pollutant or any pollutant listed under section 112(b) of the Act." § 70.2 "Stationary source."

[11] This definition has been developed solely for the purpose of providing a starting point in the analytical process for making major source determinations that is described in this guidance. It is not intended to be equivalent to the term "major source," nor is it used to define the "source" that is the basis for a major source determination at a military facility. (See footnote 4 for an explanation of how the term "source" is used in this document in relation to major source determinations.)

Many stationary source requirements of the Act apply only to "major sources" (or "major stationary sources" as they are defined under the NSR program). Therefore, the determination of whether a stationary source, or group of stationary sources considered together, is a major source is critical to determining whether a particular requirement under the Act applies to that "source."[12] Major sources (or major stationary sources) are those stationary sources that emit or have the potential to emit air pollutants in excess of threshold emission levels specified in the Act (or established by regulation by the EPA) and that meet other criteria defined by regulation.

The definitions that appear in parts 51, 52, 63, 70, and 71 consider a stationary source, or group of stationary sources considered together, to be a major source if the stationary source (or group of stationary sources) is located on one or more contiguous or adjacent properties and is under "common control" of the same person (or persons under common control).[13,14] In making major source determinations under the relevant programs, sources and permitting authorities generally would, first, determine which pollutant-emitting activities that are located on one or more contiguous or adjacent properties are under common control of the same persons (or persons under common control)[15] and, second, determine whether the initial "source" may be disaggregated into two or more "sources" based on appropriate industrial groupings and support facility relationships.

III. Guidance for Military Installations

A. **Common Control Determinations**

1. Activities Under the Control of Different Military Services, Defense Agencies, or the National Guard

Applicability:

Section 112, NSR, and title V.

---

[12] "Source" is not a defined term in the EPA's regulations for the programs addressed by this guidance. It is used in today's guidance to refer generically to the collection of pollutant-emitting activities (i.e., to the stationary source or group of stationary sources considered together) that, when aggregated appropriately under the regulations and policy of a particular program, forms the basis for the "major source" determination. Depending upon the context, "source" also is used here as it is colloquially to refer to entire facilities or plant sites that emit air pollutants.

[13] In addition, for making major source determinations under NSR and title V, these programs provide that sources can be aggregated on the basis of industrial groupings and support facility relationships, but this approach is not available under the section 112 air toxics regulations. This topic is addressed in the next section of this guidance.

[14] The EPA believes that Congress intended the term "located within a contiguous area," as it is used to define major source in section 112 and 40 CFR 63.2, to have the same meaning as the term "located on one or more contiguous or adjacent properties," as it is used to define major source in 40 CFR 70.2. The Agency's policy on the meaning of "contiguous or adjacent" property was addressed in the preamble to the proposed General Provisions for part 63 (58 FR 42767, August 11, 1993). The Agency interprets and applies this term the same way under the air toxics, NSR, and title V programs.

[15] This step is sometimes referred to as a "site determination." It may also be referred to as an initial "source" determination.

Summary:

Pollutant-emitting activities under the control of the following entities may be considered under separate control when making major source determinations at military installations: the Army, the Navy, the Air Force, the Marine Corps, the National Guard, and the defense agencies taken collectively (i.e., all the defense agencies at a military installation would be considered under common control).

Discussion:

Because "control" of all Executive Branch entities resides with the Office of the President, a literal approach to determining common control would result in a finding of common control among every Federal government entity not in the Judicial or Congressional branches. To the EPA's knowledge, this has never been the EPA's practice. Similarly, a literal approach to determining common control at military installations would result in a finding of common control among all the DOD components at an installation. While such an approach has been taken in the past, the EPA believes it is appropriate to settle on an approach to common control for the military that is reasonable as the minimum approach required to implement the relevant Clean Air Act requirements.

There are four separate military services within the DOD: the Army, the Navy, the Air Force, and the Marine Corps. The administrative functions of these services, including management control over facility operations, are the province of the separate military services. Effectively, there is no "control" relationship among these services regarding facility operation below the Secretary of Defense. In addition, there are a number of defense agencies and defense field activities established by the Secretary of Defense as necessary to perform a supply or service activity common to more than one military department. Overall supervision of each agency or field activity is assigned to the Office of the Secretary of Defense or to the Chairman of the Joint Chiefs of Staff.

National Guard units have a dual mission: while Army and Air National Guard units are reserve components of the U.S. Army and U.S. Air Force, the National Guard is also the official State militia of individual States and is under the control of the State governors unless called to active Federal duty. State Guard units support the Federal missions of the Army and Air Force and use Federal resources to meet these missions; however, Army and Air Guard commanders report to a State's Adjutant General, who is appointed by the governor of the State.

When different military services control separate groups of pollutant-emitting activities at a single military installation, the Agency believes it is appropriate to consider these activities *not* to be under common control when making major source determinations. In other words, all pollutant-emitting activities at a military installation under the control of the Army could be considered under separate control from those activities "owned or operated" by the Navy, the Air Force, or the Marine Corps. In addition, activities under the control of the National Guard may be considered under separate control from activities under the control of the military services, as can activities under the control of the defense agencies; however, as mentioned above, the defense agencies are considered under common control with each other.

Because the National Guard is controlled by States, the EPA believes it is appropriate to treat National Guard units located at military installations as being under separate control from the military services. Moreover, because the States may vary in the control relationships between Air and Army National Guard units, the EPA believes that control determinations for Air and Army National Guard units that are present together at a military installation should be made by permitting authorities.

Hereafter, for the purposes of this guidance, the term "military controlling entities" is used to refer to the controlling entities at a military installation that are considered under separate control. Figure 1 includes a complete list of the military controlling entities that may be considered under separate control under this guidance. Figure 2 includes a complete list of the defense agencies that are considered under common control with each other.

Under this approach, all portions of a military installation under the control of a military controlling entity are considered to be under common control regardless of their actual contiguity at that military installation, i.e., regardless of whether they share a reasonably continuous border. In other words, at this stage of the major source determination process, all portions of an installation that are part of a separate military service, the National Guard, or one or more defense agencies taken together are considered the same "source" on the basis of being located on the same property or on contiguous or adjacent properties.

Nevertheless, while separate military controlling entities may be treated as under separate control, determinations for military installations should be made only after examining the specific operations and interactions at those sites. Consequently, there may be situations in which the air pollution control agency or the permitting authority determines that it is appropriate to consider a military installation a single "source," notwithstanding the presence of multiple controlling

FIGURE 1:

MILITARY CONTROLLING ENTITIES THAT MAY BE CONSIDERED UNDER SEPARATE CONTROL

Air Force
Army
Defense agencies
Marine Corps
National Guard
Navy

FIGURE 2:

DEFENSE AGENCIES THAT ARE CONSIDERED UNDER COMMON CONTROL

Advanced Research Projects Agency
Ballistic Missile Defense Organization
Central Imagery Office
Defense Commissary Agency
Defense Contract Audit Agency
Defense Finance & Accounting Service
Defense Information Systems Agency
Defense Intelligence Agency
Defense Investigative Service
Defense Legal Services Agency
Defense Logistics Agency
Defense Mapping Agency
Defense Security Assistance Agency
Defense Nuclear Agency
General Defense Intelligence Program Support Staff
National Security Agency Central Security Service
On-Site Inspection Agency

entities at that military installation.[16] Nothing in this guidance precludes such a finding by an agency or permitting authority.

2. Leased and Contract-for-Service Activities

Applicability:

Section 112, NSR, and title V.

Summary:

In general, leased activities are considered under separate control and any contract-for-service activities[17] are considered under the control of the military controlling entity that controls the contract.

Discussion:

In determining which activities are under common control, a variety of factors must be considered including the nature of any contractual, lease, or other agreements that establish how facilities located at a military installation interact with one another. In essence, the relevant economic, legal, and functional relationships between or among facilities must be examined in making common control determinations. Because of the great variability that exists in control relationships at military installations, permitting authorities should make determinations of common control only after evaluating the particular operations and interactions at an installation.

In general, the controlling entity[18] is the highest authority that exercises restraining or directing influence over a source's economic or other relevant, pollutant-emitting activities.[19] In considering interactions among facilities, what must be determined is who has the power of authority to guide, manage, or regulate the pollutant-emitting activities of those facilities, including "the power to make or veto decisions to implement major emission-control measures"[20] or to influence production levels or compliance with environmental regulations.[21]

---

[16] Furthermore, because common control criteria are applied the same way under the section 112, NSR, and title V programs, common control determinations at a military installation must be consistent across applicable programs.

[17] The term "contract-for-service" is used in this guidance to distinguish this type of operation from leases which are also contractual arrangements.

[18] While the controlling entity is usually referred to as the "owner or operator," this person (or persons) may not be the literal owner or operator of an activity that he or she is considered to control.

[19] It is important to emphasize that legal relationships are not the sole basis for determining control.

[20] See the memorandum from Edward E. Reich, Director, Stationary Source Compliance Division, to Diana Dutton, Director, Enforcement Division, Region VI, dated March 16, 1979, which established the Agency's operative policy on this matter. The phrase, "the power to make or veto decisions to implement major emission-control measures," comes from 44 FR 3279, January 16, 1979, the Agency's Interpretive Ruling on PSD regulations from June 19, 1978 (43 FR 26404).

[21] See the letter from William Spratlin, Director, Air, RCRA, and Toxics Division, EPA Region VII, to State and Local Air Directors, dated September 18, 1995, in which this concept is explained further.

A determination of common control may be made on the basis of direct control, such as when collocated activities are "owned or operated" by the same military controlling entity, or on the basis of indirect control, such as when the goods or services provided by a collocated, contract-for-service entity are integral to or contribute to the output provided by a separately "owned or operated" activity with which it operates or supports. To overcome the presumption of common control when more than one entity is located at a military installation, the permitting authority may require the "owners or operators" to explain how their entities interact. In addition, the permitting authority may find it necessary to look at contracts, lease agreements, and other relevant information.

a. Leased Activities

In general, leased activities may be considered separate "sources" when they are *not* under the direct or indirect control of a lessor (e.g., through a contract-for-service arrangement) and they do not support another activity that is owned or operated by the lessor. A typical landlord/tenant or lessor/lessee arrangement exemplifies this situation, e.g., a dry cleaner in a shopping center.

The EPA believes that leased activities at military bases may be considered under separate control when they do not also have a contract-for-service relationship to provide goods or services to a military controlling entity at that military installation. These leased activities generally would be considered "tenants" on military bases.[22,23] For example, leased activities that may be considered under separate control could include commercial (e.g., "civilian reuse"[24]) or academic (e.g., university) activities, and activities under the control of other Federal, State, interstate, or local entities, provided that these activities are not contracted to provide services to a military controlling entity located at that military installation.

b. Contract-for-Service Activities

Contract-for-service activities must be included as part of the source with which they operate or support.[25] Contract-for-service (or contractor-operated) activities are inherently different from leased activities and, therefore, it is appropriate to consider them differently in making source determinations. Among other considerations, the contracting entity can control the relevant aspects of the contract operator's performance through the terms of the contract (e.g., the level of production, the requirement to implement and maintain emission control measures, the requirement to comply with all applicable

---

[22] When determining common control at military installations, a straightforward landlord/tenant type of relationship may or may not be determined to exist when the appropriate relationships are examined.

[23] The particular control relationships within the military controlling entity that oversees a contract are not relevant to the determination of "source" on the basis of common control. Thus, the typical landlord/tenant relationship should not be confused with a "military tenant command" relationship, a term used by the DOD to refer to the responsibilities of military commanding officers at particular installations.

[24] "Civilian reuse" is a term used to describe the use by nonmilitary entities of property that is part of a military installation but has been scheduled for closure or realignment pursuant to the Base Closure and Realignment Act of 1988 or the Defense Base Closure and Realignment Act of 1990. This property may be used by other Federal, State, or local agencies or for private residential or commercial purposes.

[25] See the letter from John S. Seitz to Lisa J. Thorvig, Division Manager, Minnesota Pollution Control Agency, dated November 16, 1994, in which the Agency stated its policy that "temporary and contractor-operated units [must] be included as part of the source with which they operate or support" under titles I and V of the Act.

environmental regulations, etc.). For these reasons, leased activities or properties that are also contractor-operated for the benefit of the lessor would be considered part of the source with which they operate or support.[26]

Examples of contract-for-service activities that are collocated at military installations and are likely to be under indirect control of a military controlling entity include missile rocket motor and munitions plants, food service operations that feed troops housed on the base, aircraft or ship repair/refinishing operations, and hazardous waste cleanup operations when these activities are owned or operated by private companies. When these same activities are owned or operated by a military controlling entity they would be considered under the direct control of that entity.

For leased activities that contract only part of their output (i.e., less than 100 per cent) to a military controlling entity that is located at that military installation, the permitting authority should consider on a case-by-case basis whether the leased/contracted activity is under common control with that entity. Among the factors that would need to be considered are: how integral the leased/contracted activity's output is to the entity's operations; the percentage of the output that goes to the entity; whether the activity must be on site to perform its service or produce its product; whether the activity would remain on site if the entity no longer received the output; and the terms of the contract between the entity and the activity. For example, the fact that less than 50 percent of the leased/contracted activity's output is provided to the military controlling entity could be one factor supporting a determination that the leased/contracted activity can be considered under separate control.[27]

B. Industrial Grouping and Support Facility Determinations

Applicability:

NSR and title V.

Summary:

Pollutant-emitting activities under common control at a military installation may be disaggregated further based on appropriate industrial groupings and the support facility test.

Each primary activity and support activity is assigned the 2-digit Standard Industrial Classification (SIC) Manual code that best describes it. Each support activity is considered to be

---

[26] See the April 5, 1995 letter from Kenneth Eng, Chief, Air Compliance Branch, EPA Regional Office II, to Thomas Micai, Chief, Bureau of Operating Permits, New Jersey Department of Environmental Protection, in which the EPA wrote: "EPA interprets the term 'common control' of an owner to include an operator (who is different from an owner) of a source that is operating under a contractual obligation with the owner and funded by the owner. An owner and operator having landlord-tenant or lessor-lessee type of relationship *in most cases*,
however, is not considered as under common control of the owner." [emphasis added]

[27] The permitting authority may need to consider which military controlling entity controls the leased/contracted activity when it provides output to multiple military controlling entities at that installation.

part of the same source as the primary activity that it supports.[28,29,30]

Discussion:

Historically, all activities at a military installation have been grouped under SIC Major Group 97, "National Security and International Affairs" (or, more specifically, within Major Group 97, Industry Number 9711, "National Security"). Upon evaluating the application of the SIC-code approach to classifying military installations, the EPA has determined that Major Group 97 is inappropriate for major source determinations at some military installations. In these instances, aggregating all pollutant-emitting activities at a single military installation (under common control) under the 97 SIC-code umbrella could result in the determination that the military installation must be treated as a single "source" for NSR and title V applicability. While a single "source" determination confers benefits to the military installation such as netting opportunities under NSR,[31] it may also subject portions of the installation to requirements under
the Act that would not otherwise apply if a comparable source determination were made as if for a nonmilitary facility.

The EPA believes the following approach is appropriate for determining how military facilities can be aggregated in making major source determinations. The approach involves thinking of military installations as combinations of functionally distinct groupings of pollutant-emitting activities that may be identified and distinguished the same way that industrial and commercial sources are distinguished, that is, on the basis of a "common sense notion of a plant." Thus, the "industrial groupings" at a military installation would be assigned appropriate 2-digit SIC codes (as if they were nonmilitary facilities) and classified into "primary" and "support" activities. As is now done for nonmilitary sources, support activities at military bases would be aggregated with their associated primary activity regardless of dissimilar 2-digit SIC codes. Consequently, emissions from support facilities would be added to the emissions from the primary activity when determining the major source status of the "source."[32]

---

[28] To make an industrial grouping determination, activities are assigned appropriate SIC codes, and then all those activities with codes that share the same first 2 digits are *aggregated* to form an industrial grouping.

[29] The order of determining common control first and SIC code groupings second is by no means absolute. Where source grouping by SIC code is available, it may be easier to group emission units by SIC codes first before determining common control. This will sometimes eliminate the need to make complex control determinations where the activities are clearly in a separate SIC code from and do not support the primary activity.

[30] While the EPA regulations provide for SIC code groupings, not all State and local permitting regulations do. Military installations are advised to check with their permitting authorities regarding the use of SIC codes. In addition, grouping pollutant-emitting activities by SIC code is available only under NSR programs and parts 70 and 71 and not under part 63.

[31] A single "source" determination also would establish consistency between the NSR "source" and the section 112 "source."

[32] Nevertheless, in some cases it may be appropriate to classify all stationary sources under common control at a military installation as a single "source" belonging to the 97 Major Group.

The EPA is basing this approach on a consideration of the unique type and diversity of activities at military installations and the procedures given in the SIC code manual for assigning industry codes. An SIC code is assigned based on the primary activity at a facility, which is determined by the facility's principal product, group of products, service, or activity. SIC codes are thus assigned based on *what* an activity or product is, rather than on *why* an activity is performed or *why* a product is produced. Assigning each activity at a military installation to Major Group 97, "National Security," even when there are SIC codes that more appropriately describe an installation's primary activity(ies), generally has resulted in assigning an SIC code to these activities based on their purpose instead of their product or service.

Where no appropriate SIC code exists that correlates to the distinct functional grouping that may be considered a primary activity at a military installation (e.g., combat troop training), the 97 SIC code should be used. In some instances it will not be necessary to use any other SIC code besides 97 to characterize the primary and support activities at the base; this would typically be the case for a base with a single primary activity and no other collocated ancillary activities (such as defense contractors).

The 97 SIC code should also be used, when necessary, to classify any support activity that is associated with the primary activity when a more appropriate SIC code does not exist to describe the support activity. (The need for this should be less common.) When other distinct major industrial groupings exist on the base that are not support functions for the primary activity of the base, these groupings would be described by other 2-digit SIC codes, if available, or 97. The determination of what constitutes a support facility would be made consistent with existing guidance, focusing on the concepts of "convey[ing], stor[ing], or otherwise assist[ing] in the production of the principal product" or equivalent concepts as they would be relevant to one of the primary activities at the installation.[33] In situations where an activity (e.g., an airport) supports two or more primary activities under same-entity control (e.g., missile testing/evaluation and pilot training), the support activity generally would be aggregated with the primary activity to which its output is mostly dedicated. In other words, a support facility usually would be aggregated with the primary activity to which it contributes 50 per cent or more of its output.[34] If the activity does not support any single other activity with at least 50 percent of its "product" or "service," then it may be appropriate for the permitting authority to determine that the activity should be considered a separate source instead of a support facility.[35]

---

[33] See the final PSD regulations promulgated on August 7, 1980, 45 FR 52695.

[34] However, while the 50 per cent support test is the presumptive test for these programs, it may not be the most appropriate test in certain situations. Support facility relationships should always be established in light of the particular circumstances of the sources being evaluated.

[35] In the August 31, 1995 Federal Register notice proposing changes to part 70, the EPA clarified that research and development activities may be considered separately, and usually need not be aggregated with collocated activities, for purposes of determining whether a major source is present for section 112, NSR, and title V. See 60 FR 45556. Research and development activities that qualify for this separate treatment are proposed to be defined in part as "activities conducted at a research or laboratory facility that is operated under the close supervision of technically trained personnel the primary purpose of which is to conduct research and development into new processes and products and that is not engaged in the manufacture of products for sale or exchange for commercial profit." See proposed revision to §70.2, "Research and Development Activities," 60 FR 45565.

Some examples of primary activities at military installations include combat troop training, munitions manufacturing, depot storage and distribution, ship repair, and aircraft repair. While many primary activities at military installations (as well as their support facilities such as public works centers) can be associated with 2-digit SIC codes other than 97, the actual classification of these activities and the associated source determinations for a particular base must be made on a case-by-case basis after analyzing the specific operations of that base.

Under this approach, distinct operations under the direct or indirect control of a military controlling entity may be considered separate sources -- if they do *not* support a primary activity of the base at which they are located. For example, a military contractor that is engaged in manufacturing or another activity broadly related to national defense or security but not related to the specific primary activities at the base usually would be considered a separate source. In contrast, a military contractor performing a recurring activity that is integrally related to the installation's operations would be considered part of the same source as its associated primary activity, e.g., contracted vehicle maintenance would be considered a support
service if it is associated with a primary activity on the base such as combat troop training.

Military installations include numerous activities that are not normally found at other types of sources. These types of activities include residential housing, schools, day care centers, churches, recreational parks, theaters, shopping centers, grocery stores, gas stations, and dry cleaners. These activities are located on military installations for the convenience of military personnel (both active duty and retired), their dependents, and DOD civilian employees working on the base, and they often do not represent essential activities related to the primary military activity(ies) of the base. Therefore, the EPA believes these types of activities may appropriately be considered *not* to be support facilities to the primary military activities of a base.[36] As such, these activities may be treated as separate sources for all purposes for which an industrial grouping distinction is allowed. Such activities should be separately evaluated for common control, SIC code, and support facility linkages to determine if a major source is present. This approach is limited to activities that are provided solely as amenities for active duty and retired personnel, their dependents, and DOD civilian employees on an individual transaction, pay-for-service basis; in lieu of a housing allowance; for religious or recreational purposes; or for the education or care of dependent children.

Emissions sources that support these amenities (e.g., boilers and wastewater treatment facilities) would be grouped with the amenities that receive the majority of their products or services. The resulting "sources" would be evaluated like all sources to determine if major sources are present. For example, a boiler supporting an elementary school at the military
installation would be grouped with the elementary school and not with other boilers.

In contrast to the approach just described, when aggregating HAP to determine major source status under 40 CFR part 63, stationary sources (or groups of stationary sources) must be aggregated without regard to major industrial grouping or support facility classifications. In other words, in determining a major source for HAP, the emissions from all pollutant-emitting activities at that stationary source (or group of stationary sources) on one or more contiguous or adjacent properties under common control must be aggregated; this is commonly referred to as a "fenceline to fenceline" determination.[37]

---

[36] There are instances where these types of activities do function as support facilities to the primary military activities at a military installation and, therefore, in these instances, they should be grouped with the primary military activities that they support. For example, food services that support barracks at basic training camps would be grouped with other "primary" emissions units at the camps.

[37] As currently promulgated, part 70 allows for the grouping of HAP sources by SIC code and many EPA-approved State and local title V permitting programs provide for this grouping. While the EPA has proposed to revise the part 70 definition of major source for HAP to make it consistent with the definition

C. **Title V Permitting**

Applicability:

Title V.

Summary:

After determining that stationary sources at a military installation are subject to title V permitting, permitting authorities have discretion to issue more than one title V permit to each major source at the installation, so long as the collection of permits assures that all applicable requirements would be met that otherwise would be required under a single permit for each major source.

Discussion:

The following discussion applies after the process of determining applicability has been completed (as previously described in this document) and it has been determined that one or more major sources at a military installation are subject to title V permitting.

At the discretion of the permitting authority, more than one title V permit may be issued to each major source at a military installation. All stationary sources that are subject to title V permitting within a major source must be covered by one of these permits, and the major source must not be divided in a way that is incongruous with its applicable requirements. In other words, the major source may not be divided in a way that changes how it would be subject to or comply with applicable requirements compared with what would otherwise occur if the major source were issued a single title V permit.

Permitting authorities may accept multiple permit applications from each major source, provided that each permit application is certified by a responsible official who is selected in accordance with the requirements of 40 CFR 70.2 or 71.2.

All individual permit applications are due by the deadline established by the permitting authority. Absent a specific scheduling agreement between the controlling entity and the permitting authority, the review periods for both permit application completeness and final action given in the approved State or local part 70 program (pursuant to 40 CFR 70.4(b)(6)), or in 40 CFR 71.5(a)(2) and 71.7(a)(2), do not commence until that deadline has expired.

Finally, the EPA recommends that any military controlling entity that wishes to obtain multiple title V permits for a major source under its control meet with its permitting authority in advance of permit application submission deadlines to discuss how the major source may be divided to receive separate title V permits. This discussion should address controlling entity and responsible official identification for each application and permit, the application submission schedule, and other relevant topics.

---

of major source in part 63, until permitting authorities revise their title V programs to conform to the revised part 70 regulations, HAP sources may be grouped by SIC codes to the extent allowed by the applicable State or local permitting program *for the purposes of determining title V applicability*. For the purposes of determining the applicability of section 112 requirements to sources of HAP, sources and permitting authorities must use the part 63 definition of major source.